Vision™ 2.0 Retrofit User Manual

Gammill, Inc. |March 2014

User Manual

Vision™ 2.0 Retrofit

IMPORTANT MACHINE INFORMATION

It is our goal to ensure that Customers have information on the tools and accessories (standard and optional), that are available for use with Gammill® quilting machines. Some of the tools and accessories detailed in this Manual may be optional equipment. We recommend that you consult with your Authorized Gammill Dealer or Sales Representative for the most current list of standard and optional equipment. Standard equipment, optional equipment, and pricing are subject to change without notice.

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⚠ NOTICE	This manual outlines the steps required to install a Vision 2 retrofit onto existing Gammill Vision® machines, or Gammill machines that have been outfitted with the Gammill Vision® In-Home Retrofit previously. If you do not have a Gammill Vision®, or machine with the Gammill Vision® In-Home Retrofit, consult your local Gammill representative or Gammill factory technician for assistance.

TABLE OF CONTENTS

Vision™ 2.0 Retrofit Front View 7

Vision™ 2.0 Retrofit Installation Instructions 8

- Preparation: 11
- Retrofit Module Installation: 12
- Tablet Mount Installation: 13
- Side Plate Installation (Optional): 18
- Powering Up 20

The Tablet 25

The Vision™ 2.0 Application 26

Stitching 30

Stitching Modes 31

- Constant Mode 31
- Regulate Mode 32
- Coast Regulate Mode 33
- Baste Mode 36

My Stitch™ Presets 38

My Stitch™ Buttons 40

Automatic Tie-Off Function 43

Stitch Timer Function 48

Stitch Counter Function 50

Bobbin Gauge Function 52

Connection Information 56

Needle Stop Position 57

Horizontal Channel Lock 58

Vertical Channel Lock 59

Laser 60

Additional Features - Future Enhancements 62

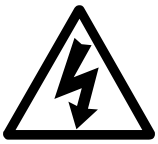
Main Menu 63

Settings and Other Screens 65

- General Navigation 65
- Gammill Vision® 2 66
- About this App & Updates 66
- Alerts 72

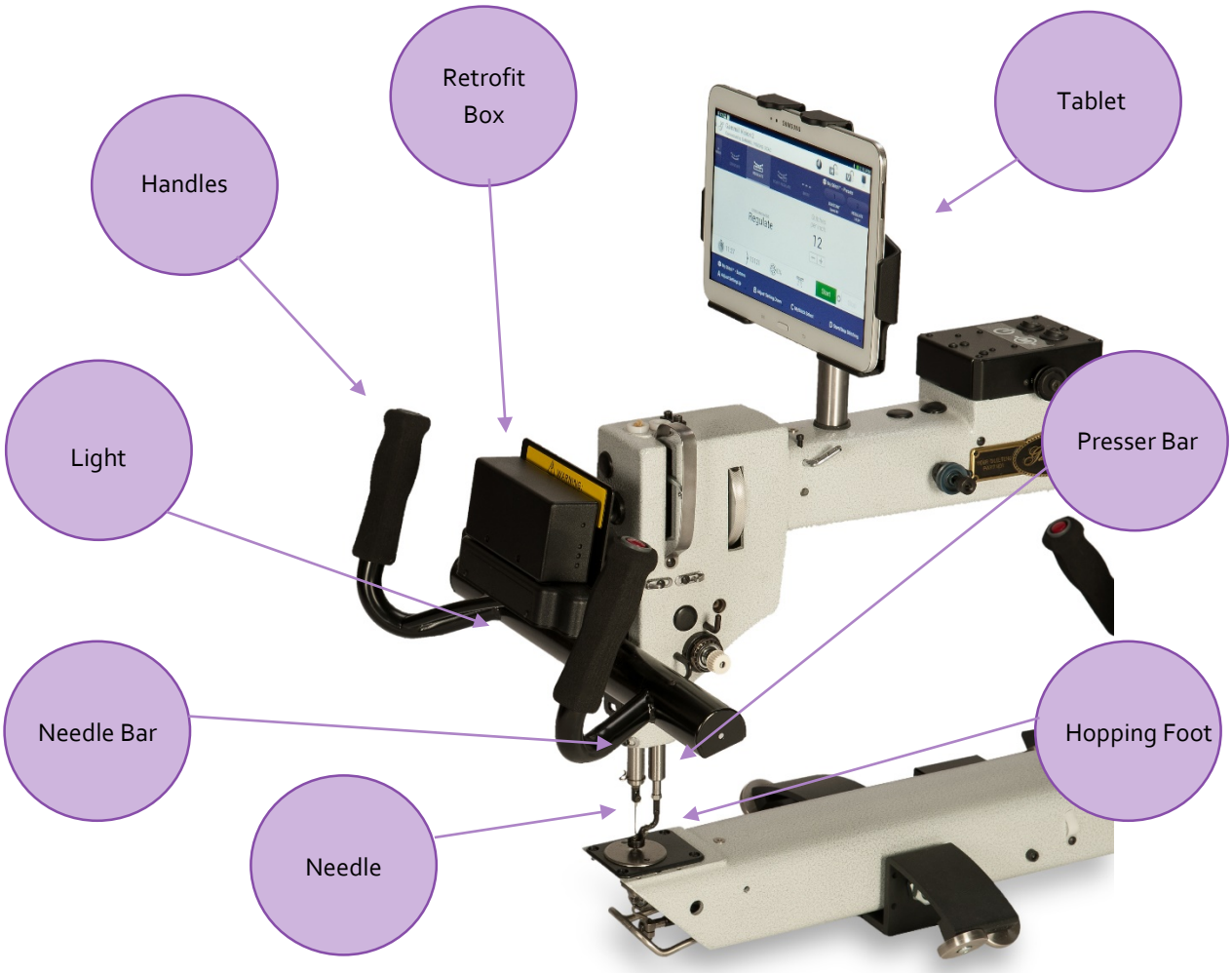
Needle Settings 75
Laser Settings 77
Display Settings 80
Bluetooth Setup 82
Quick Start Guide 84
Service & Maintenance Screens 85
Navigation 85
Buttons & Sensors 87
Motor Operation 90
Communications 95
Oiling 98
Needle Position 102

Welcome to the Vision® 2.0 Retrofit by Gammill, the latest in hand-guided quilting technology at your fingertips. Experience the ease offered by My Stitch™ customizability. Make your quilting system exactly the system you need.

⚠ WARNING	
	Risk for electric shock or burn. Unplug machine before removing any machine covers.
	Heavy weight. Some components are heavy. A minimum of two people should lift the head, table parts, or any other large components to prevent injury.

⚠ CAUTION	
	Moving needle and hopping foot can cause injury. Keep body parts and loose clothing away.
	Pinch points. It is possible to pinch hands and fingers. Be alert and keep hands clear.
	Rotating parts can cause injury. Keep hair, body parts, and loose clothing away.
	Laser radiation. Avoid direct exposure to beam.

VISION™ 2.0 RETROFIT FRONT VIEW



Part	What it does
Front Handles	The handles are equipped with push button stitches allowing two button selections. The buttons in the handles can be customized to your preferred settings.
Light	Embedded in the handles, the light illuminates the quilting area with natural (LED) or black light (UV).
Presser Bar	The presser bar holds the hopping foot and controls the hopping foot height and stroke.
Hopping Foot	The hopping foot maintains the needle and fabric distance to create good stitches. The shape makes it safe to guide the machine along the edge of a template or ruler.
Tablet	The tablet contains the Vision 2.0 Android App that communicates with the machine.
Needle Bar	The needle bar holds the needle and maintains the needle height to create good stitches.
Needle	The needle carries the thread through the fabric.
Retrofit Module	Replaces the main module as the brains of the machine. Interfaces to the tablet via Bluetooth.

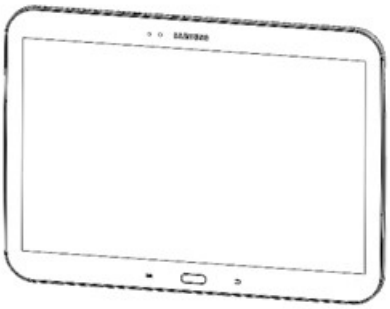
VISION™ 2.0 RETROFIT INSTALLATION INSTRUCTIONS

Welcome to the Vision™ 2.0 Retrofit. Take the current Gammill Vision® handguided longarm quilting system to a new level of functionality and customizability with the new features offered by the Vision™ 2.0 Retrofit. This retrofit is designed to be installed by the user with these simple instructions.

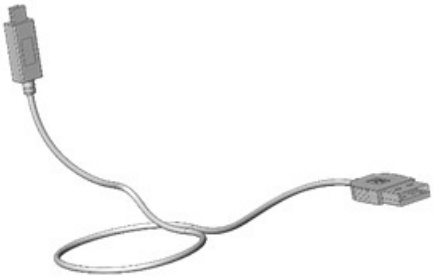
IMPORTANT NOTICE: THE VISION™ 2.0 RETROFIT WORKS WITH THE CURRENT MODULE DOCK WITH TWO PROTRUDING PINS. ANY PREVIOUS DOCKS ARE NOT COMPATIBLE.

RETROFITTING THE GAMMILL VISION® MAY BE REVERSED IF DESIRED. SIMPLY REVERSE THE INSTALLATION INSTRUCTIONS PRESENTED HERE IN THIS GUIDE.

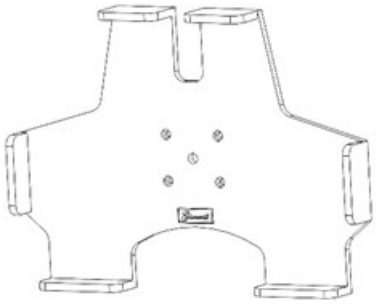
PARTS REQUIRED (INCLUDED IN KIT)



One (1) Samsung Galaxy Tab 3 Tablet

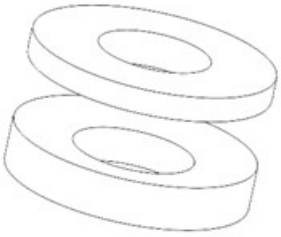


One (1) 18” USB Charging Cable

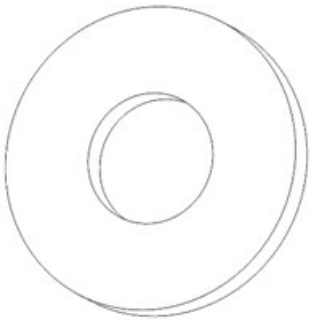


One (1) Tablet Holder

One (1) Tablet Mount

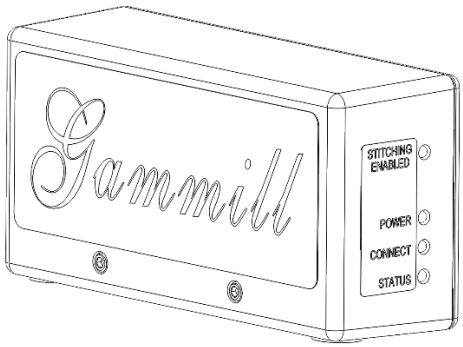


One (1) Misalignment Washer Set
(Installation Optional)

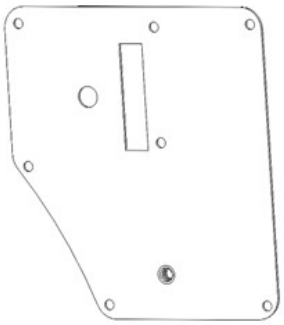


One (1) Rubber Washer

Parts Required (Included in Kit) - Continued:

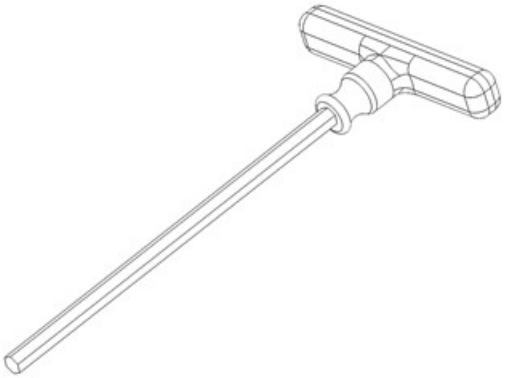


One (1) Vision 2 Retrofit Module



One (1) Side Plate

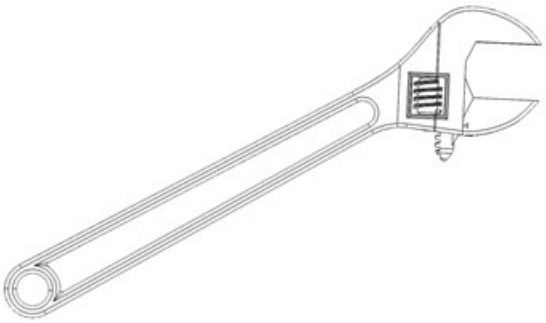
TOOLS REQUIRED



1/4” T-Handle Hex Wrench
(Included in Kit)

3/32” Hex Wrench
(Included in Kit)

5/64” Hex Wrench
(Included in Kit)



Adjustable Wrench

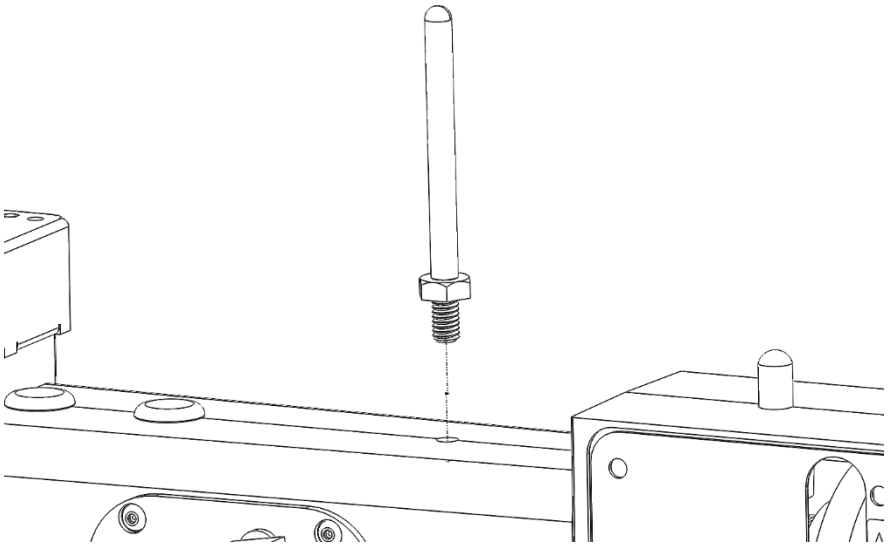
PREPARATION:

1. Turn both machine power switches to the OFF (O) position.

2. Unplug the power cord from the rear of the machine.

3. Remove the Vision main module from the dock. Store the module away as it will no longer be necessary to operate the machine.

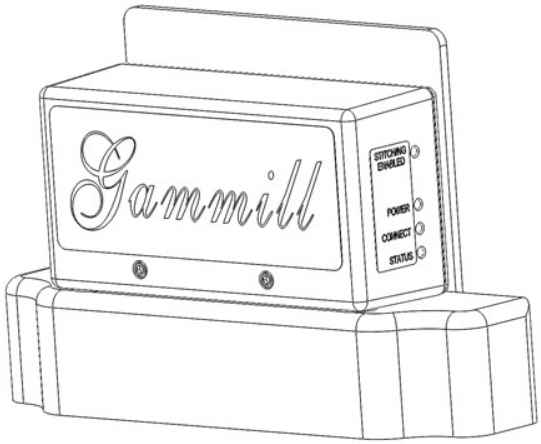
4. Using an adjustable or 7/16" wrench, loosen the jam nut and remove the stylus post from the top of the head. Set the stylus post aside for use in the Side Plate Installation Section (Optional).



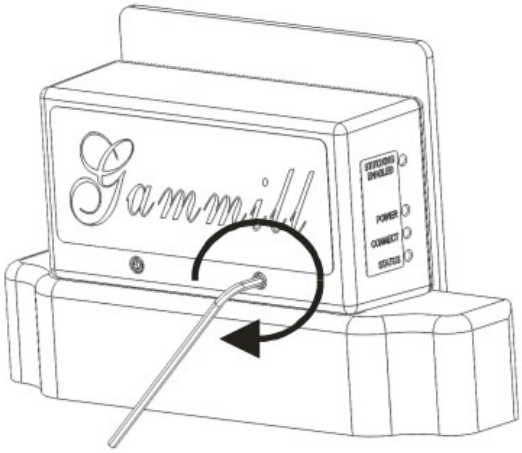
RETROFIT MODULE INSTALLATION:

1. Record the information printed on the sticker on the bottom of the retrofit module. This information may be required in a later section.

2. Place the retrofit module onto a machine dock. It is recommended that the front dock be used for easy viewing of the indicator lights, but the rear dock may be utilized if the user prefers.

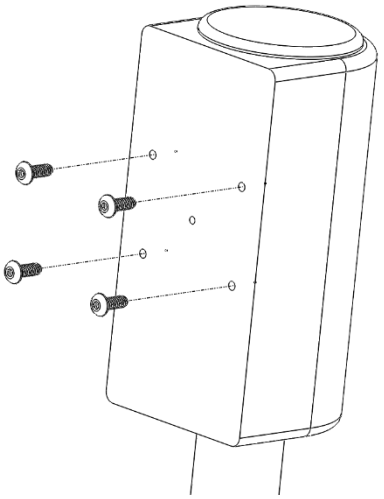


3. While holding the retrofit module into place on the dock, use a 3/32" hex wrench to tighten the two set screws on the front of the module. These screws lock onto the alignment posts and secure the module onto the machine.

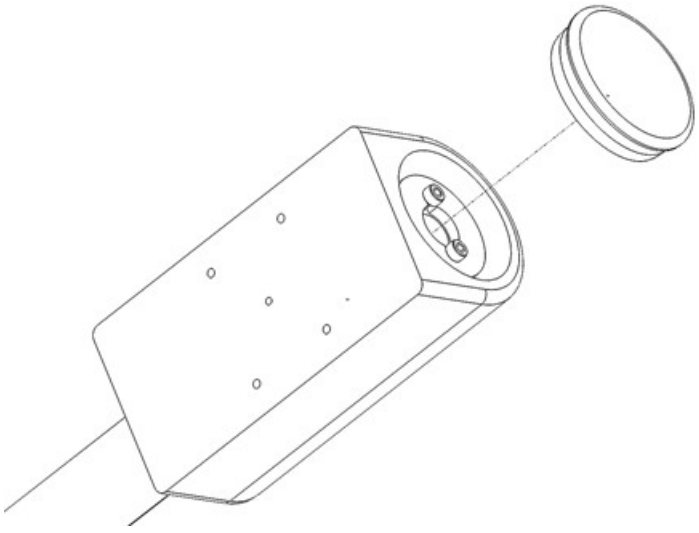


TABLET MOUNT INSTALLATION:

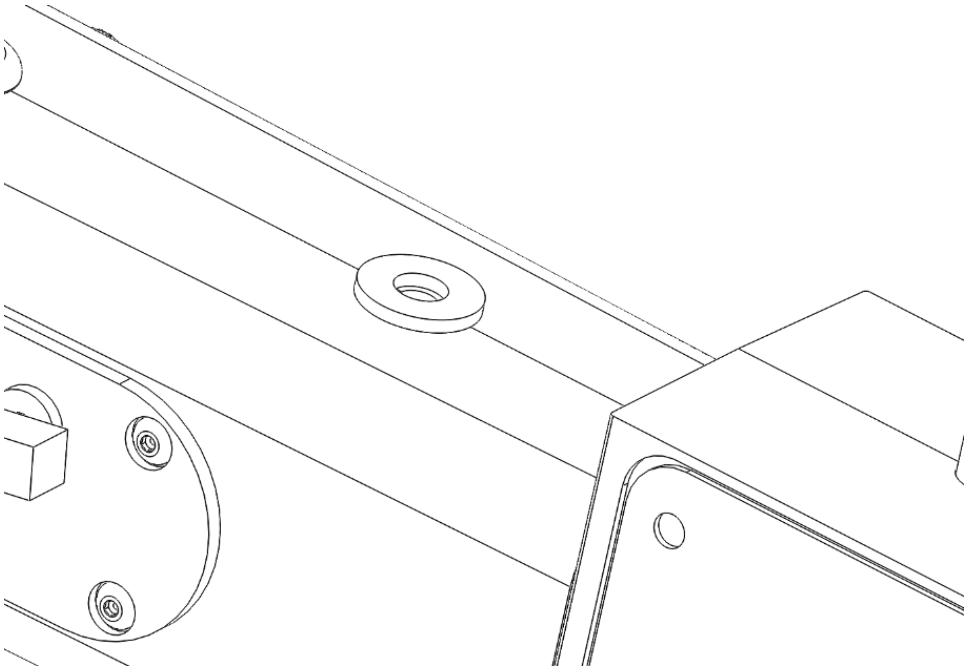
1. Using a 5/64" hex wrench, remove the four 6-32 x 3/8" screws from the Tablet Mount Block. Set them aside for re-installation in a later step.



2. Remove the plastic cap from the end of the Tablet Mount and set it aside. It will be re-installed in a later step.

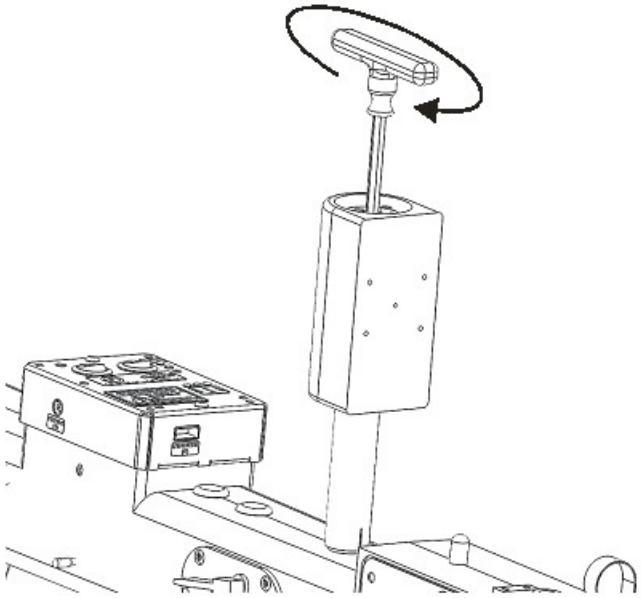


3. Place the included rubber washer onto the top of the head, around the hole where the stylus post was removed in the Preparation section, step 4. Optionally, you may also place the misalignment washers on top of the rubber washer. This is only necessary if the mount appears "tilted" due to variations in the head casting.

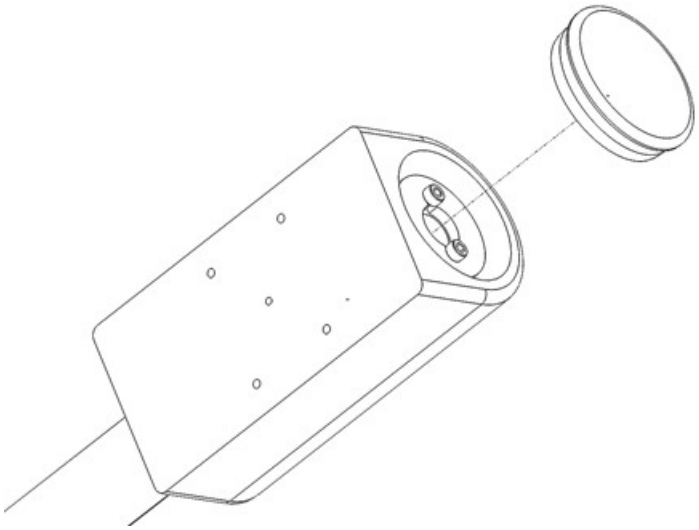


4. Place the tablet mount post onto the rubber washer.

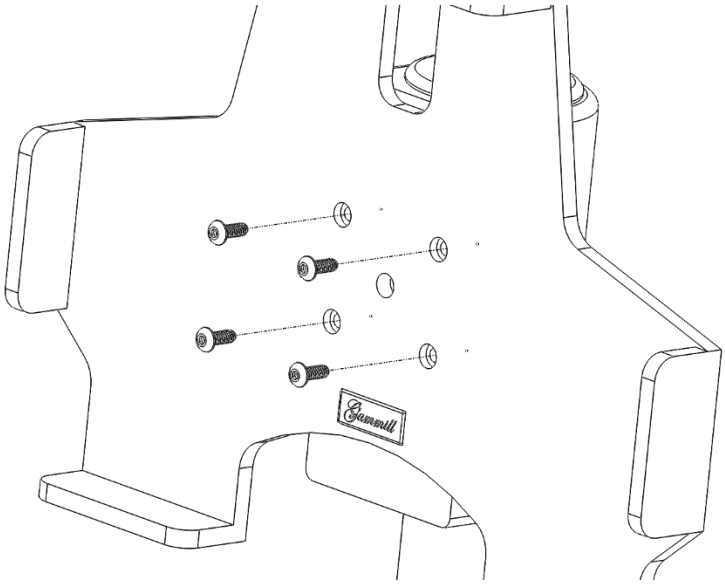
5. Use a 1/4" T-handle hex wrench to tighten the screw that goes through the middle of the post into the head. Use the alignment mark on the bottom of the post to help you align the mark with the head as you tighten. Use an adjustable wrench to hold the flats on the shaft as you tighten the screw.



6. Place the black plastic cap onto the top of the mount block.

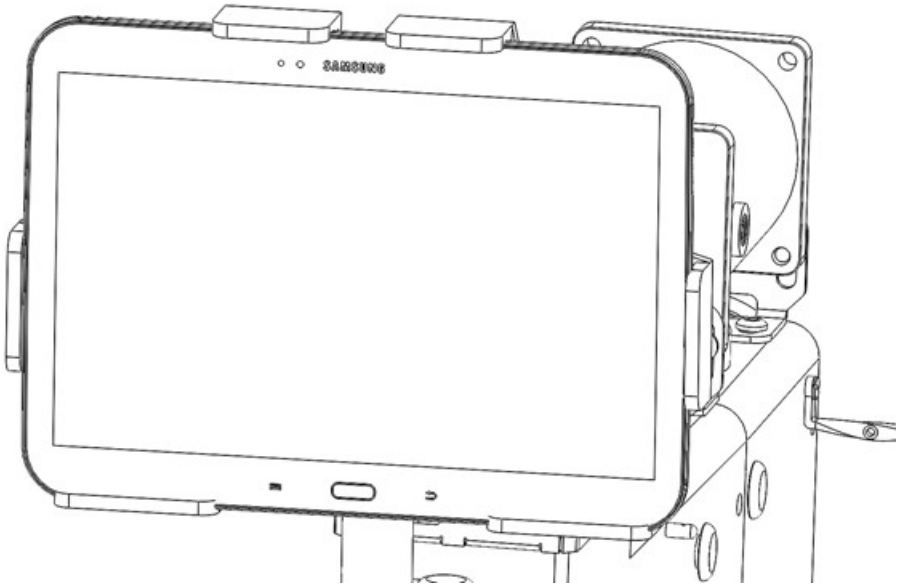


7. Using a 5/64" hex wrench, install the four 6-32 x 3/8" screws removed in step 1 of this section to secure the plastic tablet holder to the mounting block.



8. Remove the Samsung Galaxy Tab 3 tablet from its packaging.

9. Install the tablet into the holder. Place the bottom of the tablet into the holder first, and rock it rearward until it is locked into place.

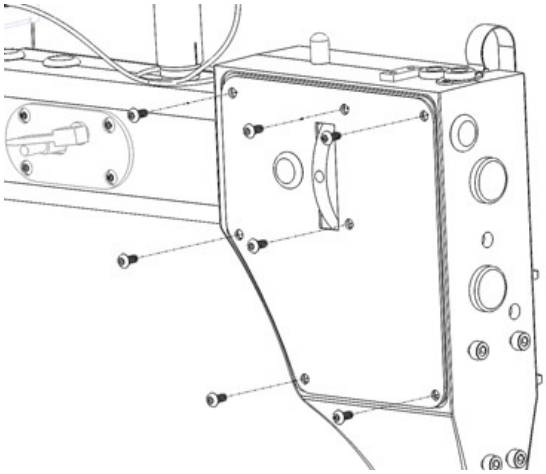


10. Plug the black 18" USB charging cable into the USB port on the side of the retrofit module and into the bottom of the tablet. Ensure the cable does not contact rotating components, etc., securing it as necessary.

SIDE PLATE INSTALLATION (OPTIONAL):

⚠ NOTICE	This section is optional. If you did not utilize the stylus post that was removed in Preparation, step 4 to use a laser at the front of the machine, this section may be skipped. Please store the parts for later use in case your needs change.

1. Using a 3/32" hex wrench, remove the eight (18" and 22" machines) or seven (26" and 30" machines) 8-32 x 3/8" screws that secure the side plate to the head. Note - Front Dock and Handles removed in image for clarity.

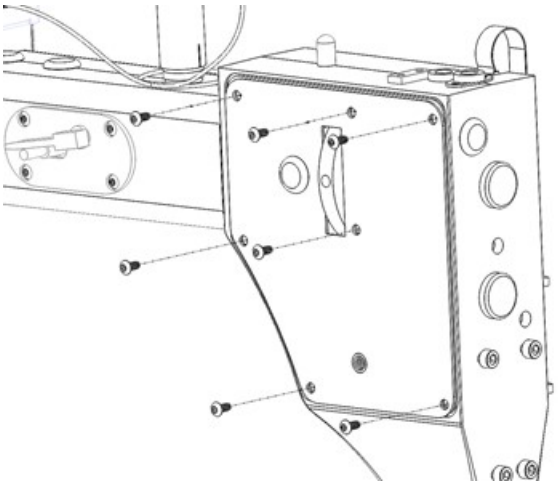


2. Remove the rubber gasket from the head and clean of all oils.

3. 26" or 30" Machines ONLY - move the hole plug from the old side plate to the new one.

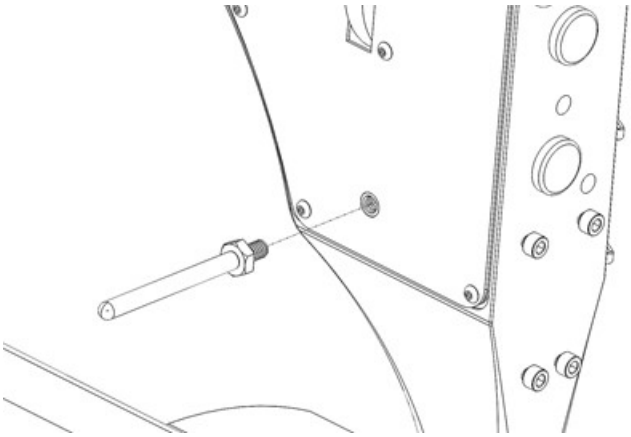
4. Place the gasket onto the side plate and place them both onto the head.

5. Using a 3/32" hex wrench, install the eight (18" and 22" machines) or seven (26" and 30" machines) 8-32 x 3/8" screws to secure the side plate to the head. Note - Front Dock and Handles removed in image for clarity.



6. Turn the hand wheel by hand. Verify that neither the gasket nor new side plate are rubbing the hand wheel as it is rotated. If it does rub, repeat Steps 1 – 6, adjusting where necessary to eliminate the issue.

7. Install the stylus post removed in Preparation, step 4 into the nut on the side plate. Note - Front Dock and Handles removed in image for clarity.



8. Using an adjustable or 7/16" wrench, tighten the jam nut to secure the stylus post.

1. Plug the power cord back into the rear of the machine.

2. Turn both power switches to the ON (I) position.

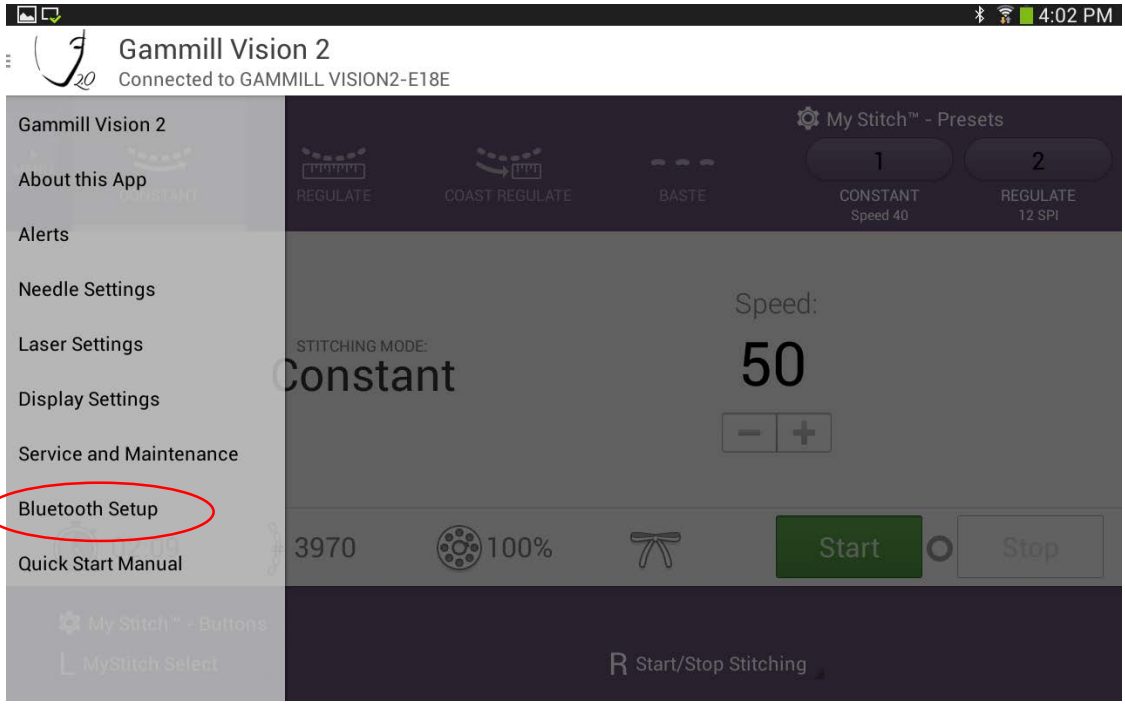
3. Observe that the power light on the retrofit module is lit. If it is not lit, turn the power switches OFF (O) and ensure that the retrofit module is properly installed onto the dock.

4. Turn the Samsung tablet on. To do this, press and hold the power button (upper left corner) until you see a logo on the screen.

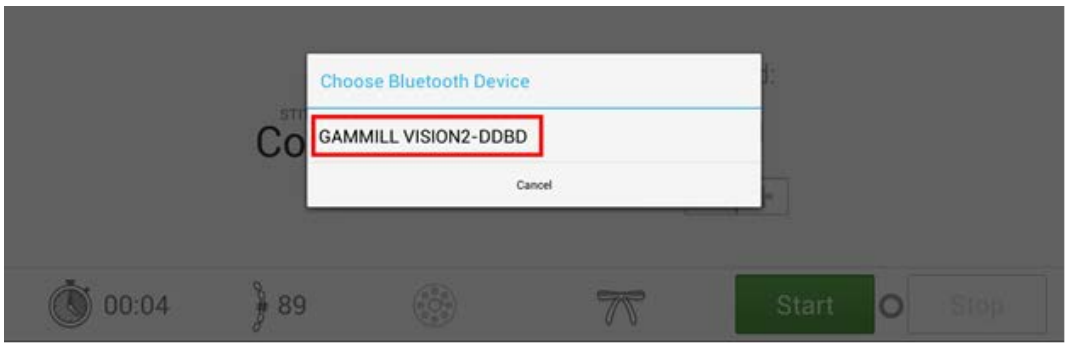
5. Once the tablet is fully booted, touch the Gammill Vision 2 icon on the home screen to open the app.

6. Touch the Menu button on the upper left of the screen.

7. Touch Bluetooth Setup.

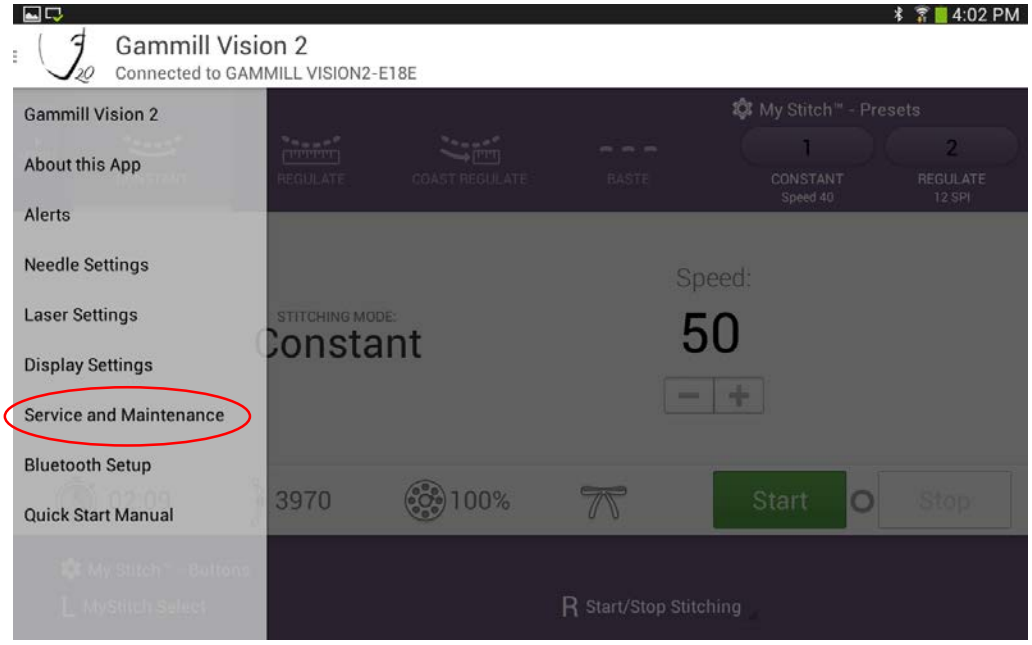


8. Touch the address of your machine from the list. If you have multiple machines on the listing, consult the address recorded in step 1 on page 12. It is four digits, and may consist of numbers and capital letters. I.E. FBBD, DC4A, etc. The tablet will be connected to the machine.

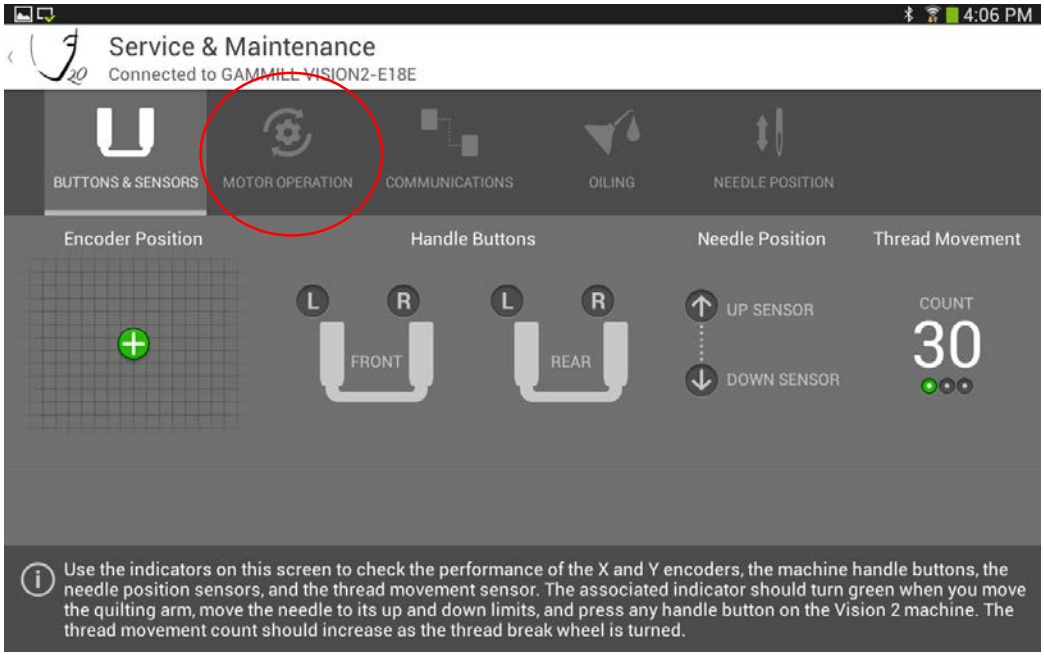


9. Touch the Menu button on the upper left of the screen.

10. Touch Service and Maintenance. The screen will change to the Service and Maintenance screens.

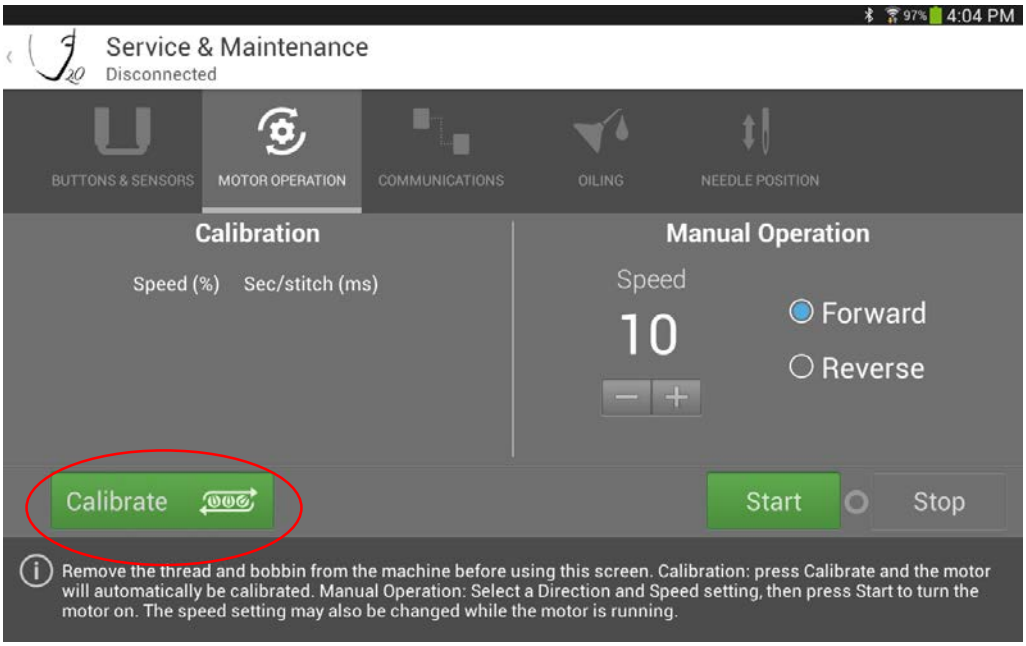


11. Touch the Motor Operation tab. The tab displayed will change.

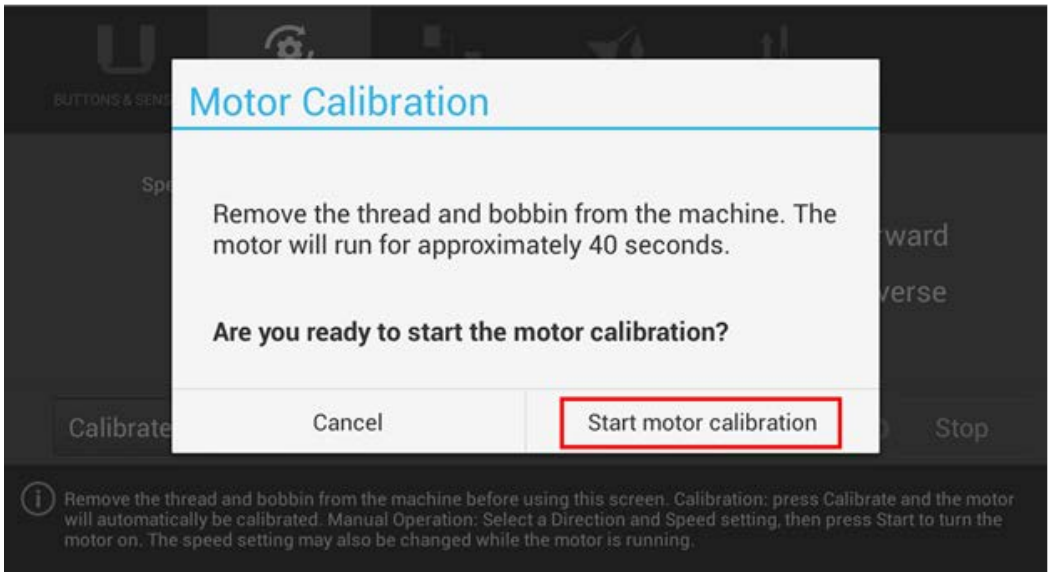

4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

12. Remove thread from needle and take-up lever if necessary. Also remove the bobbin from the machine.

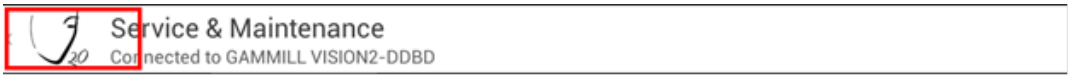
13. Touch Calibrate. A popup window will appear.


4:04 PM
Service & Maintenance
Disconnected
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
10
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

14. Touch Start motor calibration on the popup window. A calibration routine will be run on your motor. This is used to improve the accuracy of stitch regulation. The test will run for approximately 40 seconds and automatically stop when complete.

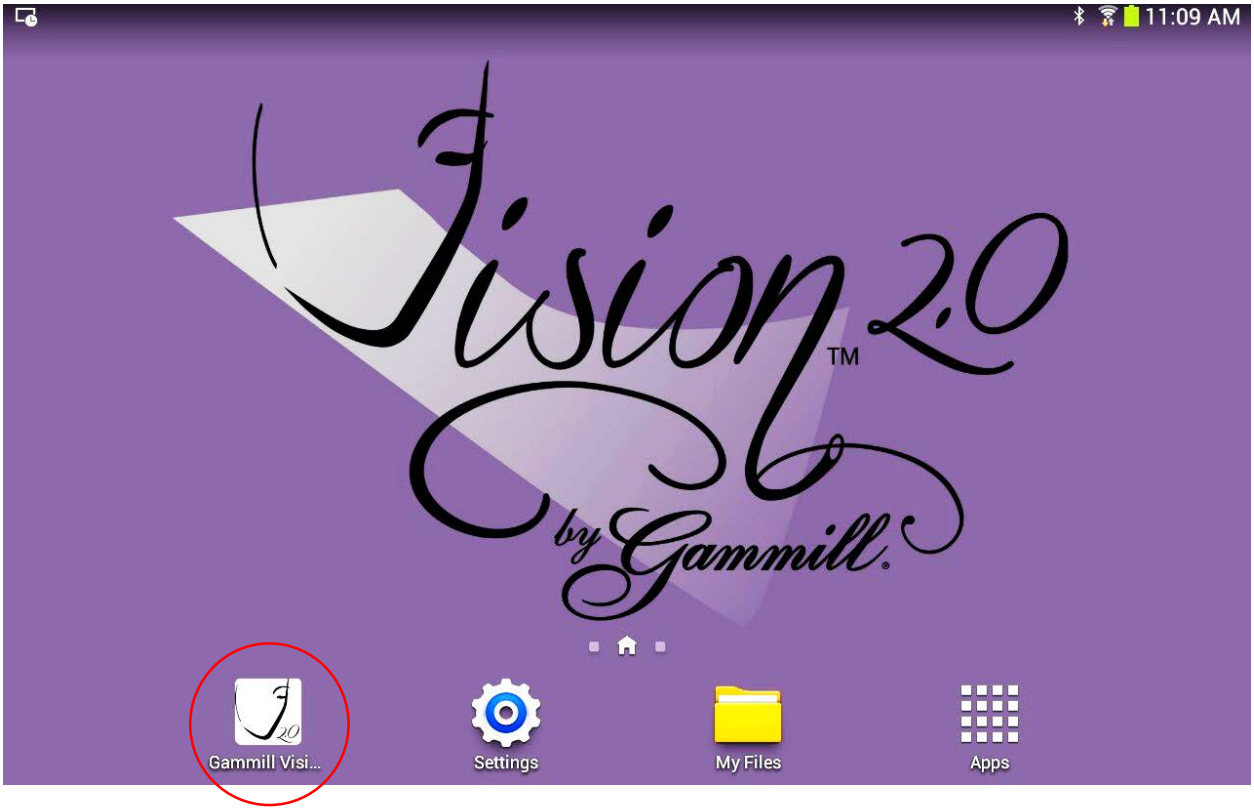

Motor Calibration
Remove the thread and bobbin from the machine. The motor will run for approximately 40 seconds.
Are you ready to start the motor calibration?
Cancel
Start motor calibration
Calibrate
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

15. Once calibration is complete, touch the icon in the upper left corner of the screen to return to the main screen.



16. Installation is complete. Enjoy your new Vision™ 2.0 retrofit.

SEE THE SAMSUNG TAB 3 QUICK START GUIDE FOUND IN THE TABLET BOX FOR BASIC TABLET INFORMATION.



Find the Vision™ 2.0 Application Icon on the tablet Home Screen and tap to launch it. It can also be found on the app screen.

Samsung Tablet Updates:

SAMSUNG WILL REGULARLY PUSH UPDATES FOR THE TABLET. WE RECOMMEND THAT YOU DO NOT INSTALL THESE UPDATES UNTIL WE PUT A NOTICE ON THE GAMMILL WEBSITE RECOMMENDING YOU DO SO. THIS WILL GIVE US TIME TO CHECK THE UPDATE TO SEE HOW IT WILL INTERACT WITH OUR APPLICATION AND YOUR VISION™ 2.0 SYSTEM.

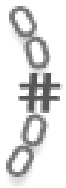
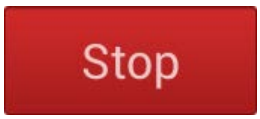
The main screen offers the most commonly used features at a finger's touch. Notice this screen is broken down into four sections: the title bar, top ribbon, mode section and the bottom ribbon.

The **Title Bar** contains the application title, key quilting features used for specialty functions. The **Top Ribbon** provides access to the menu, quilting modes and My Stitch™ presets. In the **Mode Section,** the active stitching mode is displayed along with access to stitching adjustments such as speed and stitches per inch along with related features such as starting and stopping stitching. The **Bottom Ribbon** accesses the My Stitch™ Buttons features.

Title Bar		What you can do with it
	Menu Access	Accesses the menu options for specialized functions and contains the connection status to the machine
	Needle Position	Sets needle position when stitching stops to needle up or needle down
	Horizontal Lock	Locks the head to only move in the horizontal direction
	Vertical Lock	Locks the head to only move in the vertical direction
	Laser	Turns the laser on or off
Top Ribbon		**What you can do with it**
	Menu Tab	Accesses the menu options for specialized functions
	Constant	Allows the constant stitching mode to be selected

	Regulate	Allows the regulate stitching mode to be selected
	Coast Regulate	Allows the coast regulate stitching mode to be selected
	Baste	Allows the basting mode to be selected
	My Stitch™ Presets 1 & 2	Allows two modes and settings to be saved for easy access and for use by the My Stitch™ buttons.

Mode Section		What you can do with it
	Stitching Mode	Indicates the active stitching mode.
	Stitch Setting	Indicates the stitch setting and allows stitch adjustment
	Stitch Timer	Tracks stitching time and is resettable

	Stitch Counter	Tracks the stitch count and is resettable
	Bobbin Gauge	Tracks the bobbin usage and alarms when the bobbin is low
	Tie Off Function	Initiates a series of tiny locking stitches
	Start Button	Starts stitching
	Stop Button	Stops stitching
Bottom Ribbon		What you can do with it
	My Stitch™ Buttons A-D	Assigns functions to each of the four handle buttons.

IF THE TOUCH SCREEN SEEMS LESS SENSITIVE AFTER A WHILE, REBOOT THE TABLET BY PRESSING AND HOLDING THE TABLET POWER BUTTON. SELECT **RESTART** FROM THE WINDOW. ONCE RESTARTED, REOPEN THE APP BY TOUCHING THE ICON.

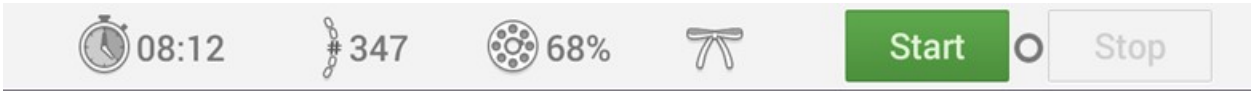
WHEN TURNING OFF THE MACHINE, PUT THE TABLET TO SLEEP BY PRESSING THE BUTTON ON THE TOP LEFT EDGE OF THE TABLET. IF THE TABLET IS LEFT ON WITH THE MACHINE OFF, THE TABLET BATTERY WILL BE DEPLETED QUICKLY.

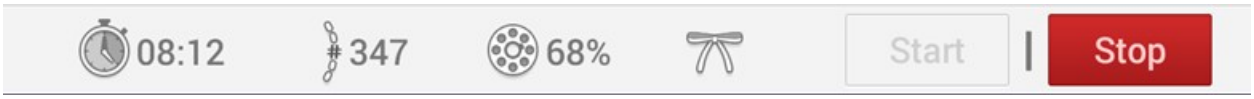
	⚠ CAUTION
	Moving needle can cause injury. Keep body parts and loose clothing away.

To begin and end stitching, there are several options available.

Start and Stop On-screen Buttons:

- Select the green **START** button located in the bottom right mode portion of the screen to enable stitching using the main screen. To stop, select the red **STOP** button located in the same area.





Handle Button:

- Use the My Stitch™ feature to program any handle button to control stitch starting and stopping to match your needs. The Start/Stop Stitching control can be assigned to any of the two buttons, but one must be set to Start/ Stop Stitching.

- Press the handle button assigned to start or stop stitching to engage and disengage stitching.

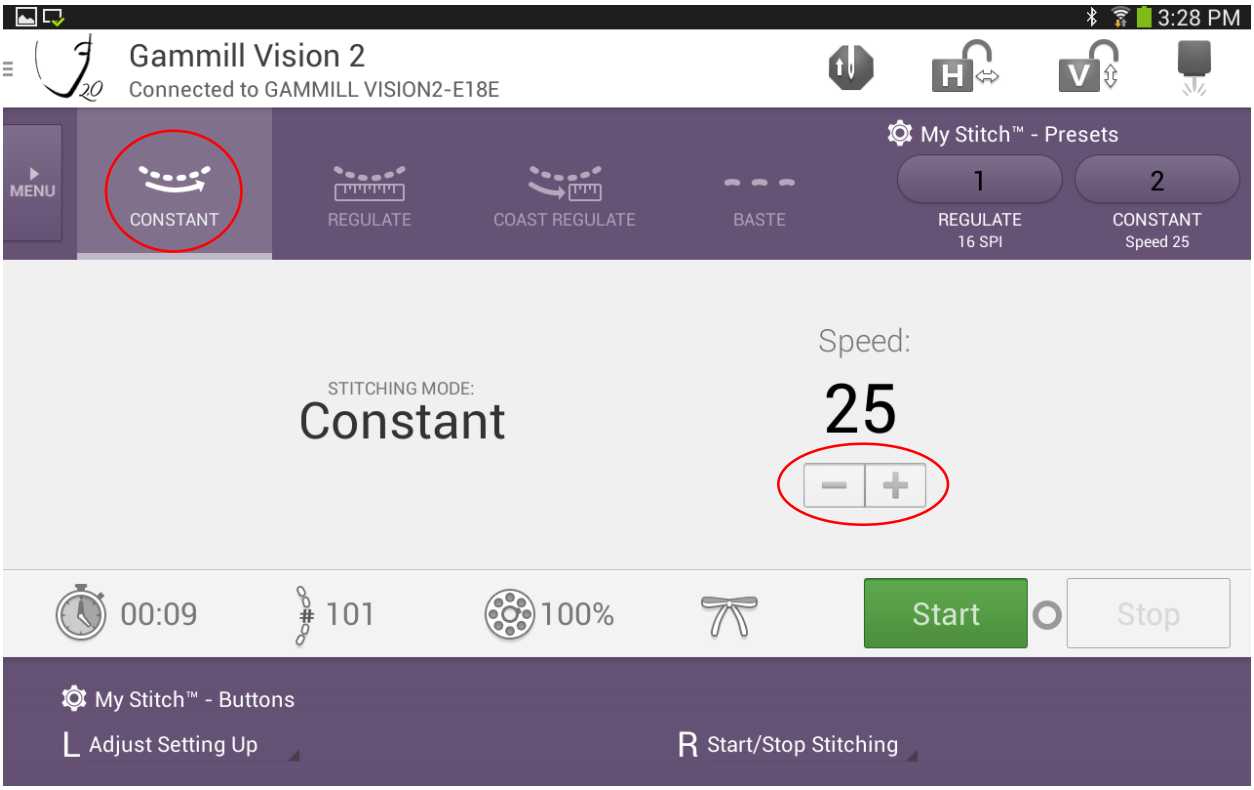
SIDE NOTE: THE MACHINE WILL STOP STITCHING ON ITS OWN IF IT SENSES NO MOVEMENT FOR 10 SECONDS. THIS IS A SAFETY FEATURE THAT CANNOT BE DISABLED.

STITCHING MODES

Vision™ 2.0 features four stitching modes: constant, regulate, coast regulate and baste. Stitching modes are selected in the top ribbon and the active mode is displayed in the mode section and highlighted on the top ribbon.

CONSTANT MODE:

Constant Mode stitches at an unchanging speed. The rate the needle moves up and down to stitch does not increase or decrease with the movement of the head, but rather stays constant.



To engage Constant Mode:

- Tap the **Constant icon** in the top ribbon.
- Notice the stitching mode is indicated in the mode section in the middle of the screen.

To set Constant Mode speed:

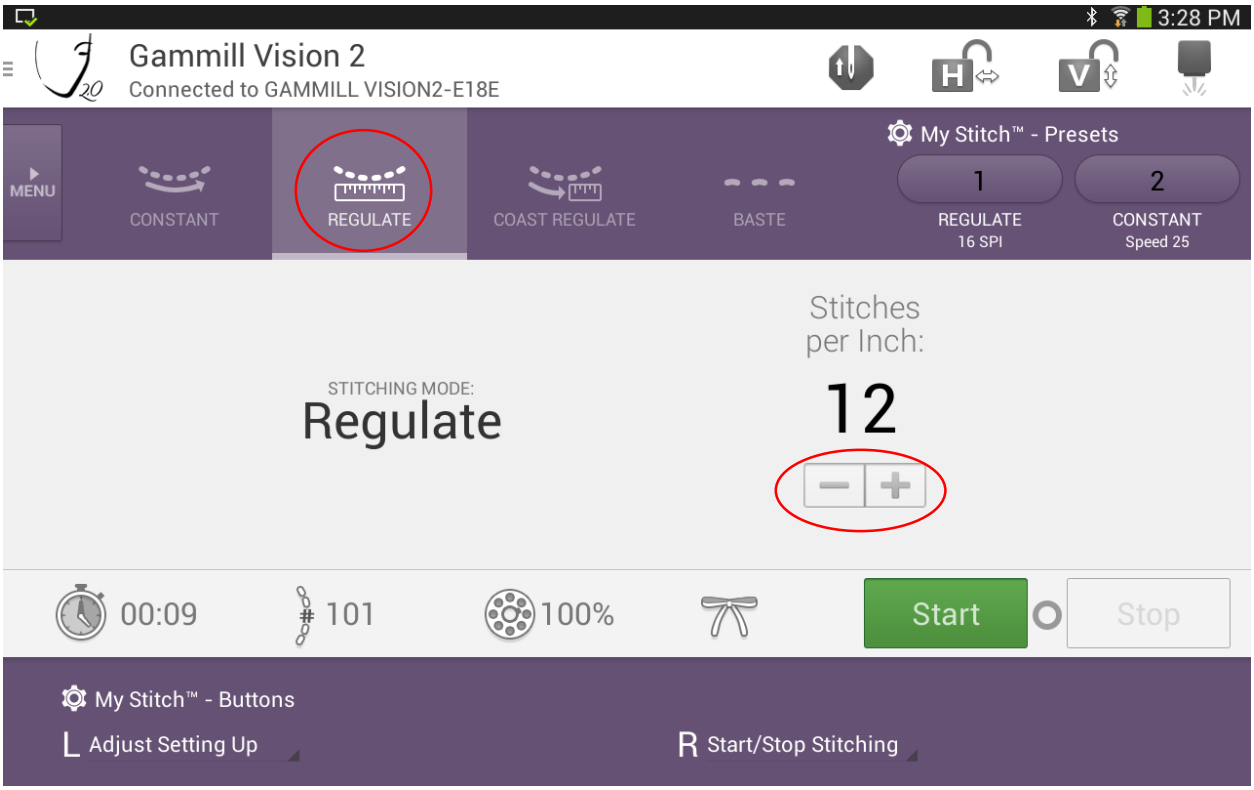
- Adjust the speed up or down by tapping the **plus or minus sign** in the mode section.
- Speed can be set from 0 to 100.

To adjust Constant Mode speed while quilting:

- Tap the **plus or minus sign** to increase or decrease speed while stitching.

REGULATE MODE:

Regulate Mode controls the length of the stitch regardless of the movement of the machine. Whether the head moves slowly or quickly, the stitch length remains the same.



To engage Regulate Mode:

- Tap the **Regulate icon** in the top ribbon.
- Notice the stitching mode is indicated in the mode section in the middle of the screen.

To set Regulate Mode:

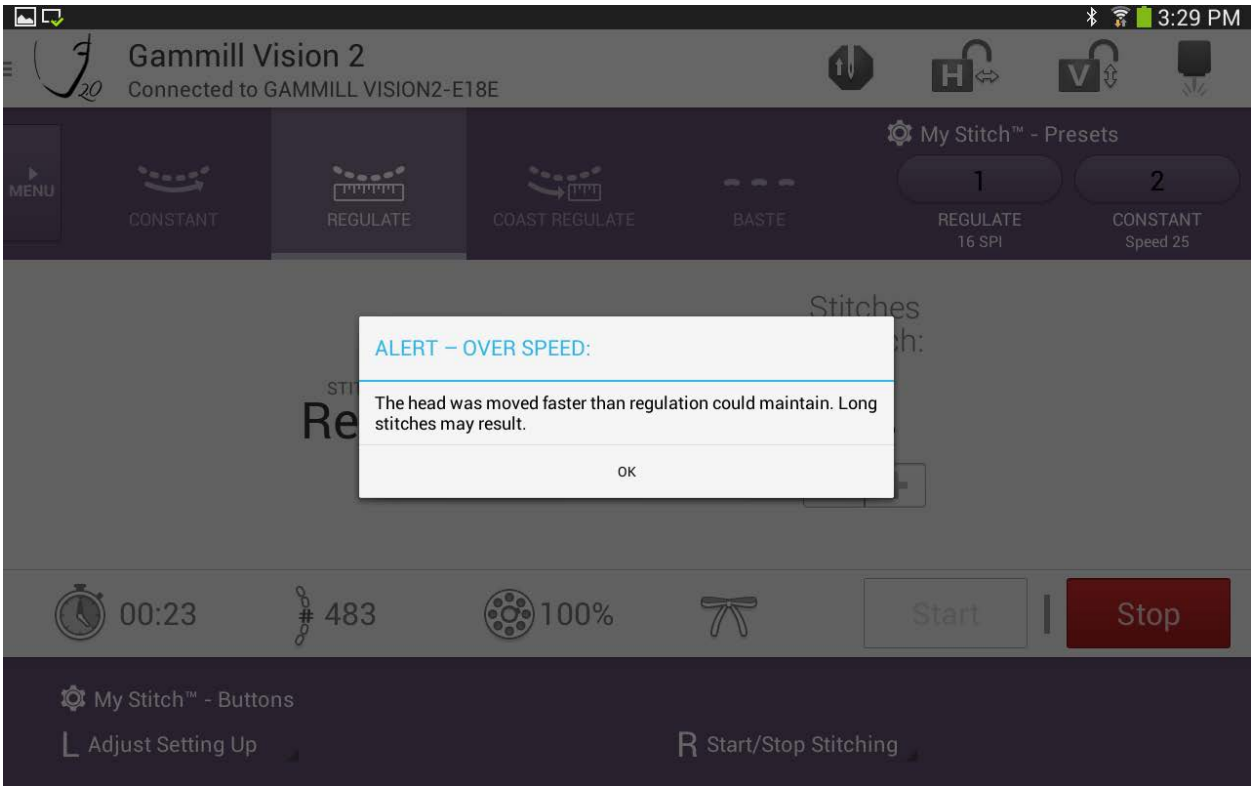
- Adjust the stitch length up or down by tapping the **plus or minus sign** in the mode section.
- Stitch length can be set from 8 to 24 stitches per inch.

To adjust Regulate Mode while quilting:

- Tap the **plus or minus sign** to increase or decrease the stitch length while stitching.

BECAUSE THE MACHINE IS MAINTAINING A SET NUMBER OF STITCHES PER INCH, WHEN THE HEAD STOPS MOVING, STITCHING PAUSES. MOVING THE HEAD WILL CAUSE IT TO RESUME STITCHING. IF THE HEAD IS NOT MOVED FOR 10 SECONDS, THE MACHINE WILL STOP STITCHING. PRESS THE START BUTTON TO RESUME STITCHING.

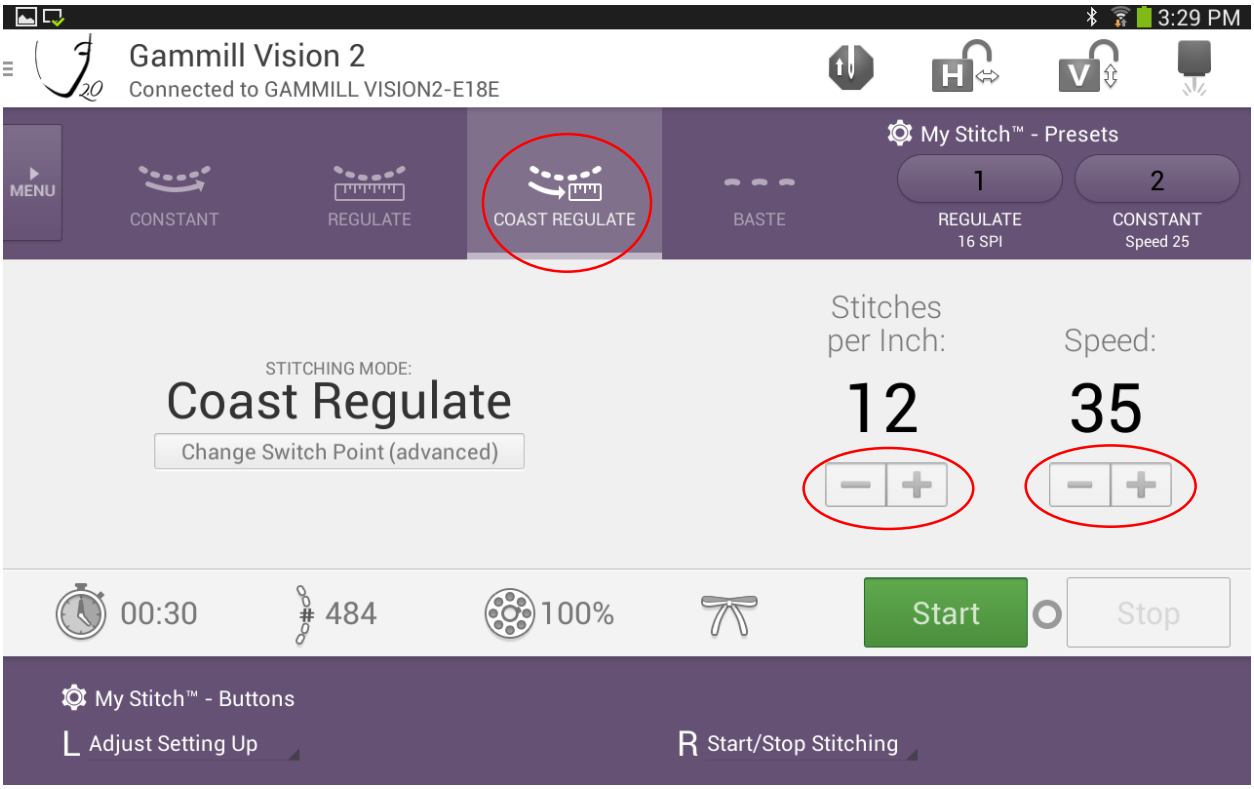
Over Speed Alarm:



WHEN THE STITCHES PER INCH ARE SET AT A HIGH NUMBER, AND THE HEAD IS MOVED QUICKLY, IT IS POSSIBLE THAT THE REQUIRED MOTOR SPEED WOULD BE HIGHER THAN CAN BE MAINTAINED FOR AN EVEN STITCH. IF THIS SITUATION OCCURS, AN ALERT MESSAGE: *OVER SPEED* WILL APPEAR ON THE SCREEN. IF THIS APPEARS, LONG STITCHES COULD RESULT. SETTING A LOWER STITCHES PER INCH SETTING, SLOWING MOVEMENTS, OR BOTH WILL PREVENT THIS.

COAST REGULATE MODE:

Coast Regulate Mode offers graceful transitions between large sweeping patterns and fill work. By fluctuating between stitch regulation and constant speed, the machine adjusts to the rate the head is moved providing the best of both worlds.



To engage Coast Regulate Mode:

- Touch the **Coast Regulate icon** in the top ribbon.
- Notice the stitching mode is indicated in the mode section in the middle of the screen.

To set Coast Regulate Mode:

- Touch the **plus** or **minus sign** under Stitches per Inch to adjust stitch length.
- Touch the **plus** or **minus sign** under Speed to adjust the stitching speed.

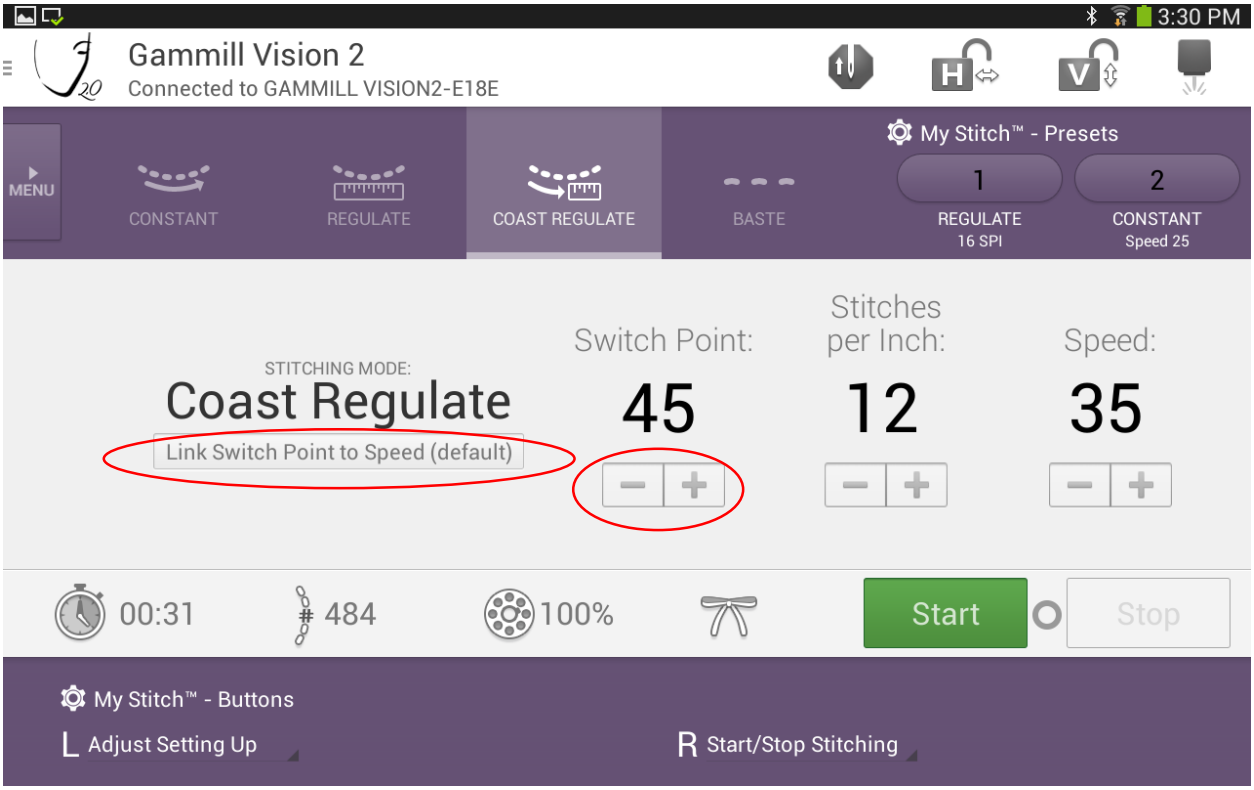
To adjust Coast Regulate Mode while quilting:

- Touch the **plus or minus sign** to increase or decrease speed while stitching or stitches per inch.

COAST REGULATE MODE FLUCTUATES AUTOMATICALLY BETWEEN CONSTANT AND REGULATED MODES. THE SET SPEED AND STITCHES PER INCH ARE USED TO DECIDE WHICH MODE THE MACHINE WILL STITCH IN. AS THE HEAD IS MOVED, THE MACHINE CONTINUALLY LOOKS AT THE MOTOR SPEED REQUIRED TO MAINTAIN THE STITCHES PER INCH. IF THIS RATE OF MOVEMENT IS ABOVE THE SET SPEED, THE MACHINE OPERATES IN A REGULATED MODE

AND MAINTAINS THE SET STITCHES PER INCH. IF THE SPEED IS BELOW THE SET SPEED, THEN THE MACHINE RUNS AT A CONSTANT MODE AT THE SPEED SETTING.

AS AN ADVANCED FEATURE, THE POINT AT WHICH THE MACHINE SWITCHES FROM REGULATE TO CONSTANT CAN BE SELECTED INDEPENDENTLY FROM THE CONSTANT SPEED.



To enable the Coast Regulate Switch Point:

- Touch the **Change Switch Point (advanced**) button located below the words "Coast Regulate" in the Stitching Mode indicator in the white mode section.
- The switch point appears in the mode section.

To set the Coast Regulate Switch Point:

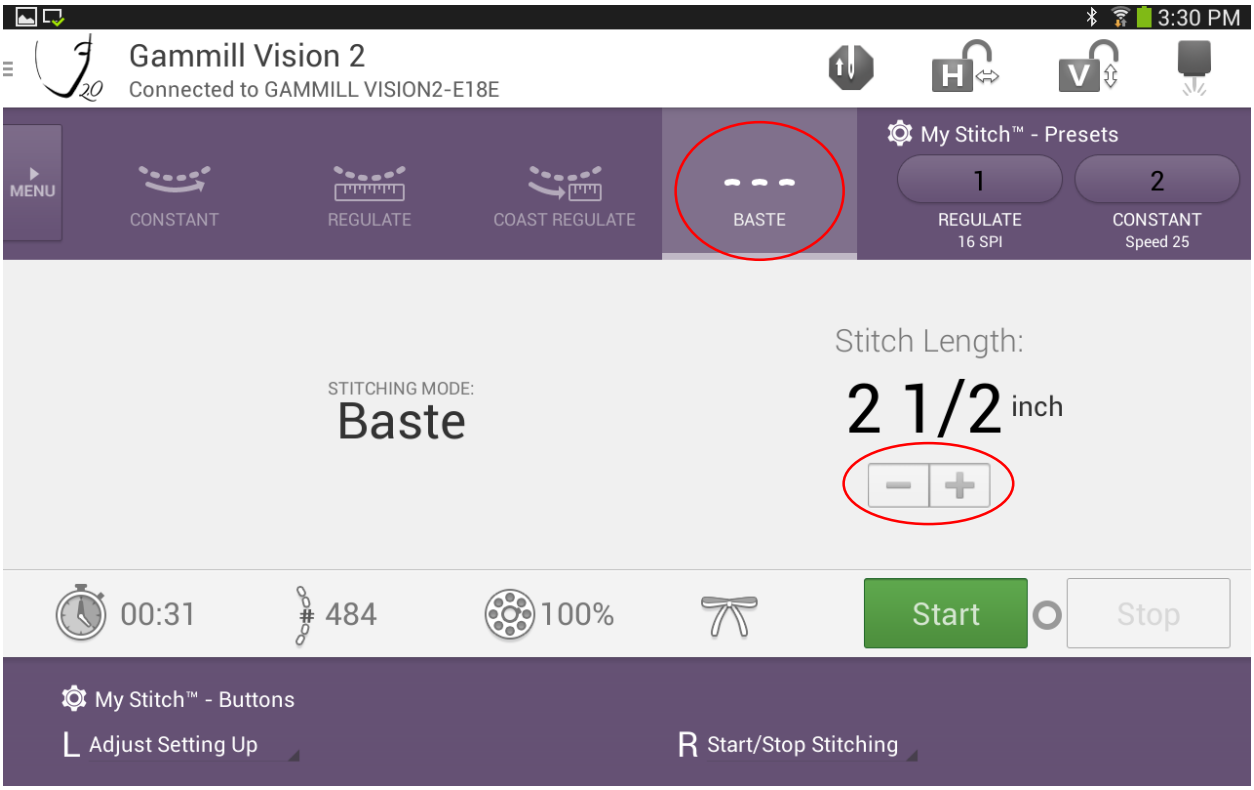
- Touch the **plus or minus sign** below the Switch Point indicator to adjust up or down.

To disable the Coast Regulate Switch Point:

- Touch the **Link Switch Point to Speed (default)** button located below the words "Coast Regulate" in the Stitching Mode indicator in the mode section.

BASTE MODE:

Baste mode functions like stitch regulation on a large scale, stitching from ¼ inch up to 4 inches per stitch. This helps to stabilize the quilt.



To engage Baste Mode:

- Touch the **Baste icon** in the top ribbon.
- Notice the stitching mode is indicated in the mode section in the middle of the screen.

To set Baste Mode:

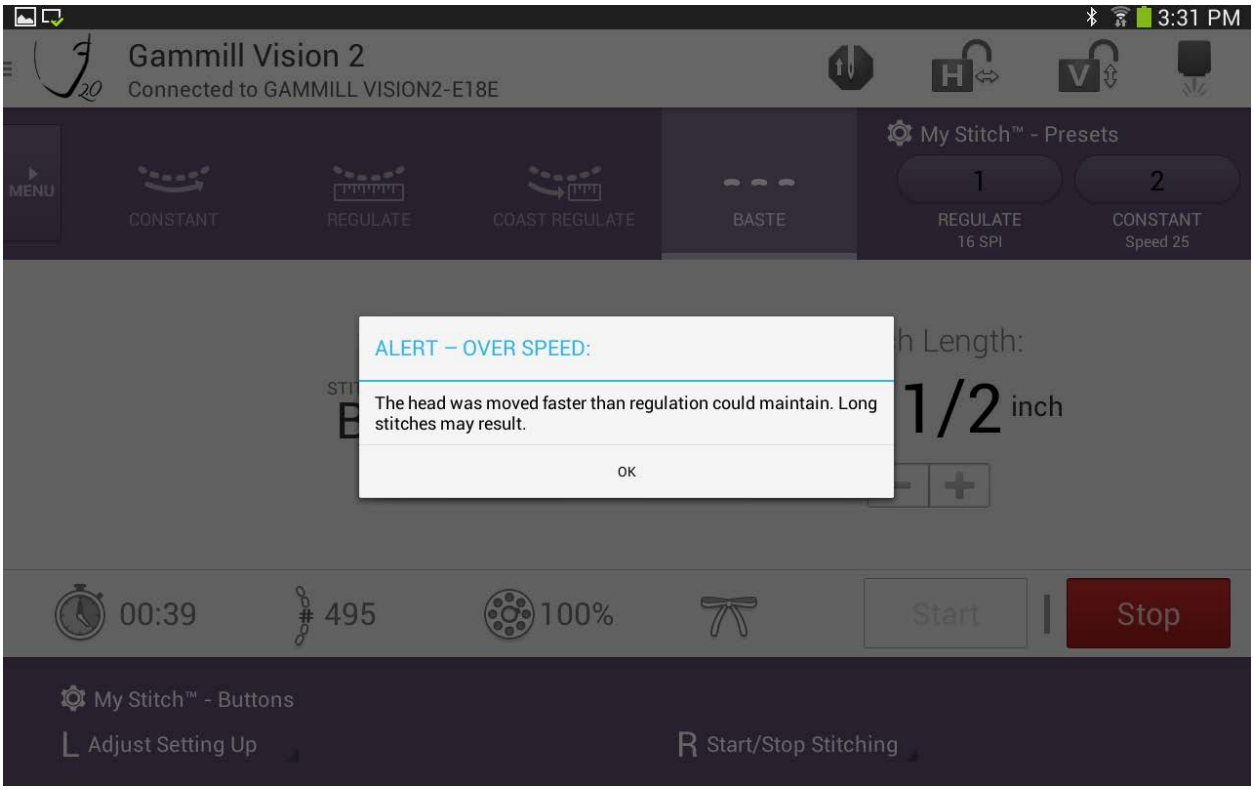
- Touch the **plus or minus sign** to adjust the stitch length.
- Basting length can be set from ¼ inch to 4 inches in ¼ inch increments.

To adjust Baste Mode while basting:

- Touch the **plus or minus sign** to increase or decrease stitch length while stitching.

BECAUSE THE MACHINE IS MAINTAINING A SET NUMBER OF STITCHES PER INCH, WHEN THE HEAD STOPS MOVING, STITCHING PAUSES. MOVING THE HEAD WILL CAUSE IT TO RESUME STITCHING. IF THE HEAD IS NOT MOVED FOR 10 SECONDS, THE MACHINE WILL STOP STITCHING. PRESS THE START BUTTON TO RESUME STITCHING.

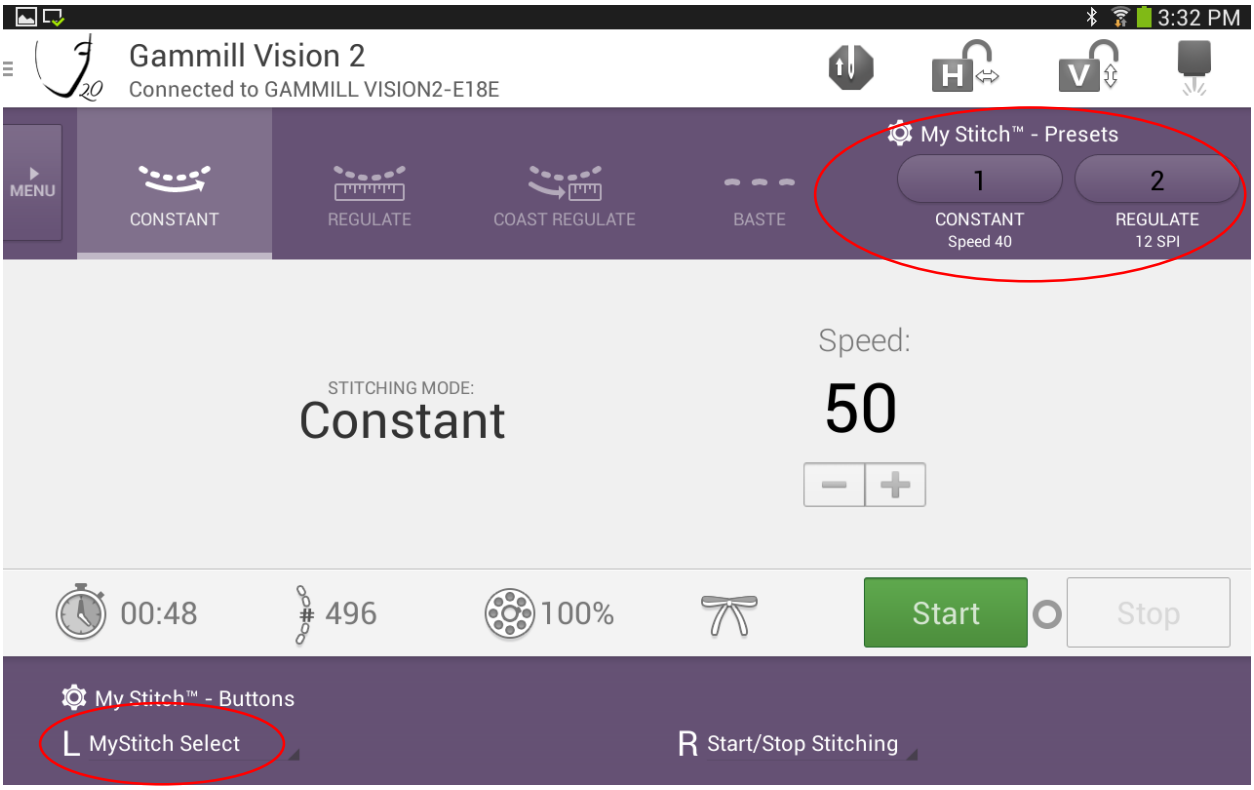
Over Speed Alarm:



WHEN THE STITCH LENGTH IS SET AT A LOWER NUMBER, AND THE HEAD IS MOVED QUICKLY, IT IS POSSIBLE THAT THE MACHINE CAN BE MOVED FASTER THAN THE STITCHING CAN MAINTAIN. IF THIS SITUATION OCCURS, AN ALERT MESSAGE: *OVER SPEED* WILL APPEAR ON THE SCREEN. IF THIS APPEARS, LONG STITCHES COULD RESULT. SETTING A LOWER STITCHES PER INCH SETTING, SLOWING MOVEMENTS, OR BOTH WILL PREVENT THIS.

MY STITCH™ PRESETS

My Stitch™ Presets offers a way to create presets for modes and settings. This is very useful for commonly used values. Additionally, by using the My Stitch™ Select Button, the user may change between the two presets without stopping stitching.



To access a My Stitch™ Preset:

- Tap the numbered My Stitch™ Preset button desired to access.
- Notice the stitching mode is indicated in the mode section in the middle of the screen and the active My Stitch™ Preset button is white.

To set a My Stitch™ Preset:

- Once the mode and settings are adjusted, touch and hold the desired preset button for 2 seconds to program it.
- Notice the mode and setting are indicated below the My Stitch™ Preset button.

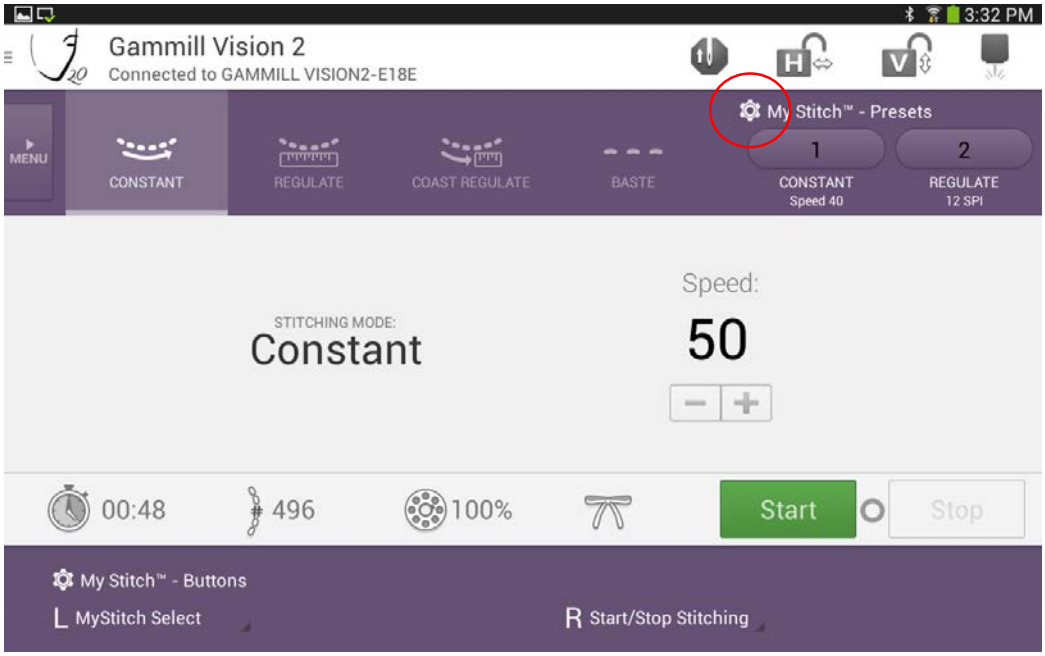
To use the My Stitch™ Presets with My Stitch™ Buttons:

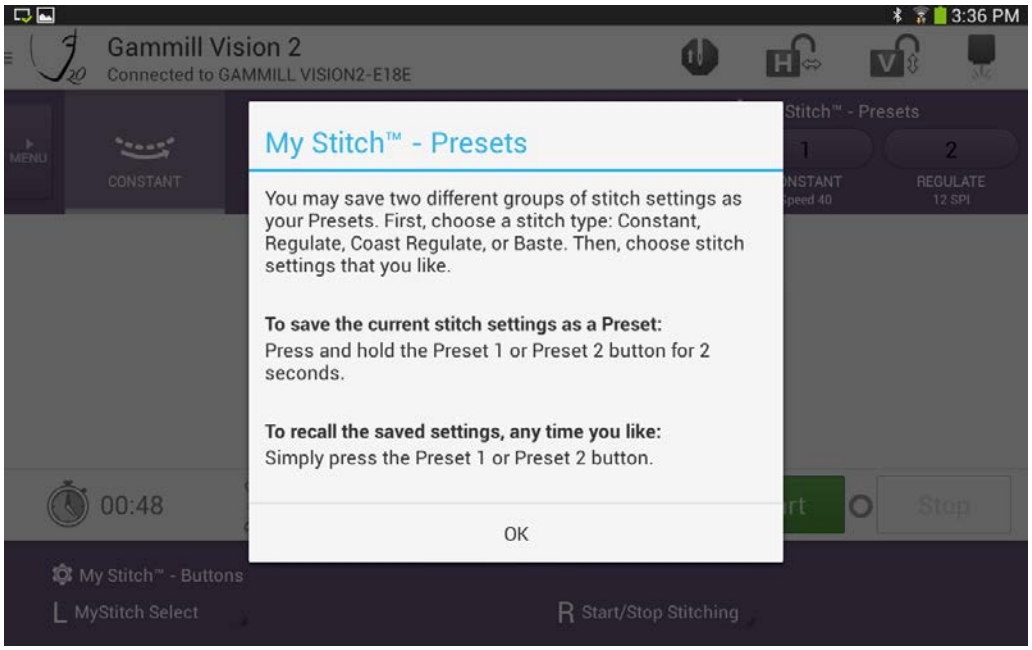
- Set one of the My Stitch™ Buttons to **My Stitch Select.**
- While stitching, press the handle button set to My Stitch Select.
- Notice the stitching mode instantly changes to the newly selected preset while stitching.

EACH OF THE TWO PRESETS CAN BE SET TO ANY MODE AND SETTING COMBINATION THAT IS AVAILABLE TO THE USER. WHILE THE EXAMPLE IMAGE SHOWS TWO DIFFERENT MODES, IT IS POSSIBLE TO SET BOTH PRESETS TO THE SAME MODE WITH DIFFERENT SETTINGS, ETC. THIS FEATURE IS LIMITED ONLY BY THE USER'S IMAGINATION.

To access Help:

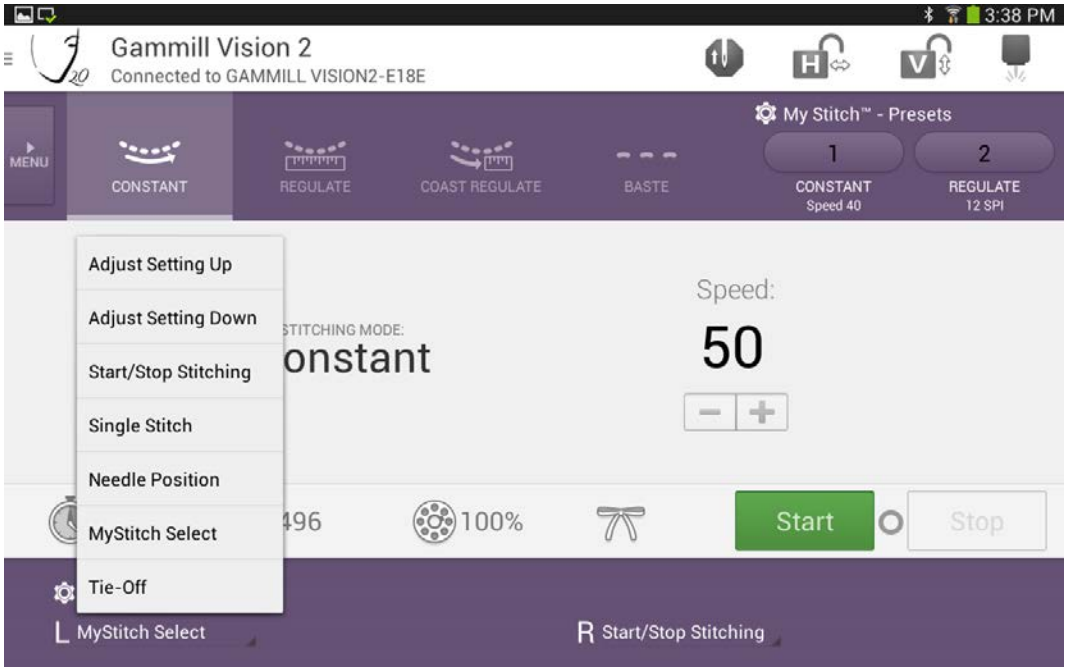
- Press the small gear above the My Stitch Preset buttons.




3:36 PM
Gammill Vision 2
Connected to GAMMILL VISION2-E18E
My Stitch™ - Presets
You may save two different groups of stitch settings as your Presets. First, choose a stitch type: Constant, Regulate, Coast Regulate, or Baste. Then, choose stitch settings that you like.
To save the current stitch settings as a Preset:
Press and hold the Preset 1 or Preset 2 button for 2 seconds.
To recall the saved settings, any time you like:
Simply press the Preset 1 or Preset 2 button.
OK
00:48
My Stitch™ - Buttons
MyStitch Select
Start/Stop Stitching

MY STITCH™ BUTTONS

The My Stitch™ Buttons feature offers adjustment while stitching, fingertip access to key features and assistance with common functions. Each of the two My Stitch™ Buttons can be customized and set to change functions and speeds on the fly as well as access key functions such as tie off.



Each of the two buttons can be configured to any one of the following functions:

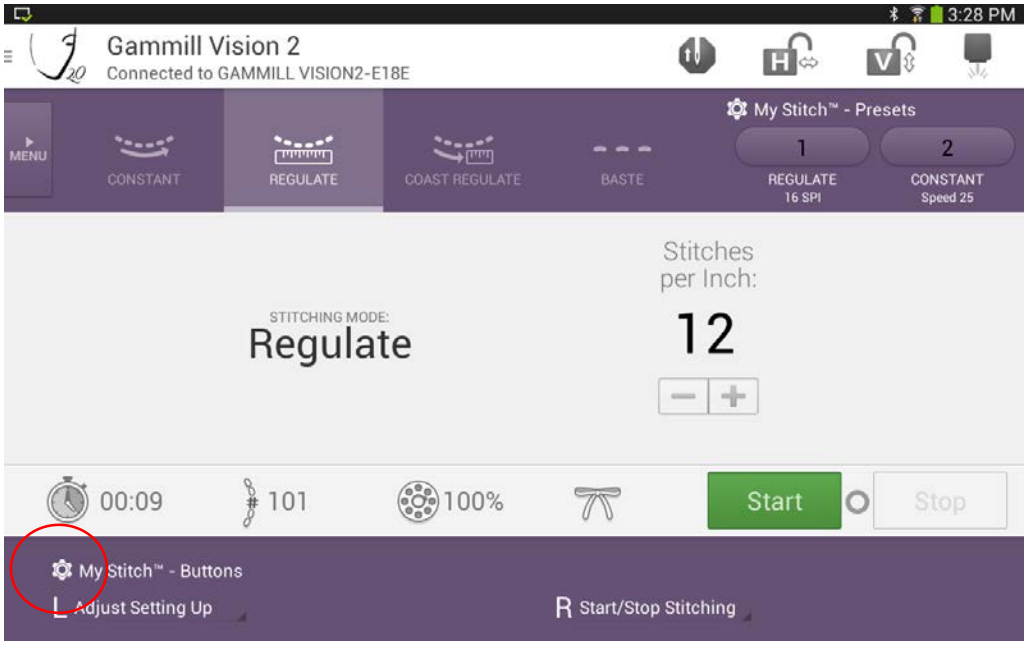
Function	Function Description
Adjust Setting Down	When pressed, the setting of the current mode will be decreased by one increment. If in Coast Regulate mode, only the Speed setting will be decreased.
Adjust Setting Up	When pressed, the setting of the current mode will be increased by one increment. If in Coast Regulate mode, only the Speed setting will be increased.
Needle Position	If the needle is up, when pressed, the needle will move to the down position and vice versa. When pressed again, the needle will move back to the up position.
Single Stitch	When pressed, the machine will take one stitch.
Start / Stop Stitching	This starts or stops the machine from stitching. One button must be set to this setting for the machine to function.
Tie Off	When pressed, the machine will begin the tie-off function.
My Stitch Select	When pressed, the machine function will switch between the two My Stitch™ Presets. If stitching, the machine will not stop, but will instantly switch between the two modes.

EACH BUTTON PERFORMS THE SAME FUNCTION WHETHER STITCHING IS STARTED OR STOPPED. HOWEVER, SOME FUNCTIONS SUCH AS NEEDLE POSITION AND SINGLE STICH ARE DISABLED ONCE STITCHING IS STARTED.

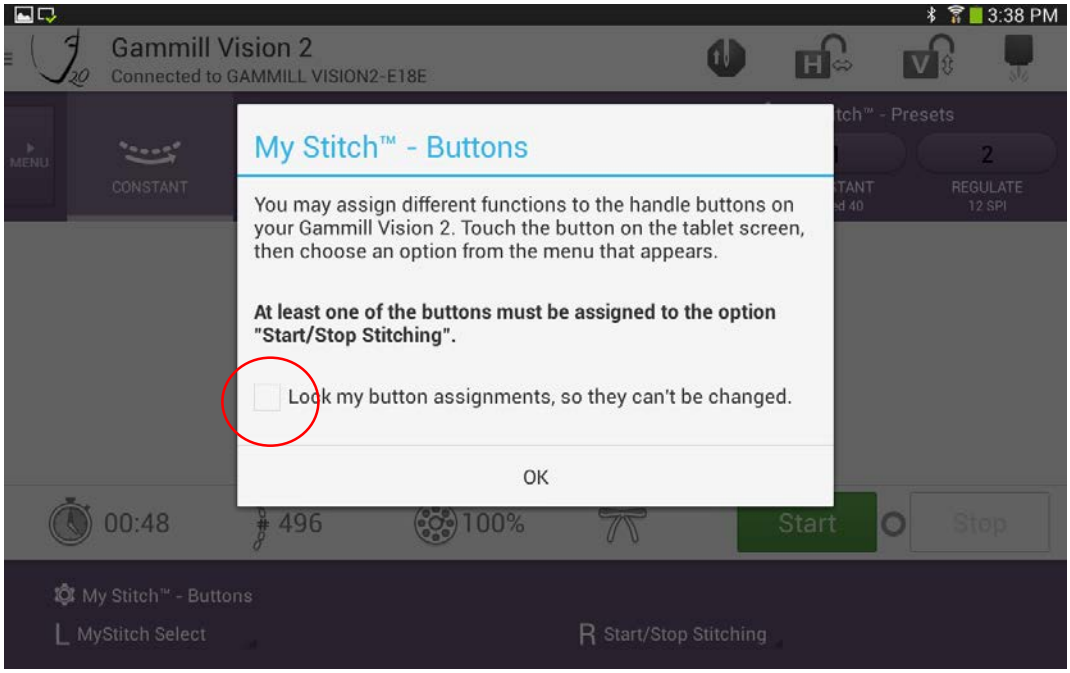
LOCKING THE BUTTON ASSIGNMENTS PREVENTS THEM FROM EASILY BEING CHANGED.

Locking the My Stitch Buttons:

- Touch the small gear beside the My Stitch™ Buttons.

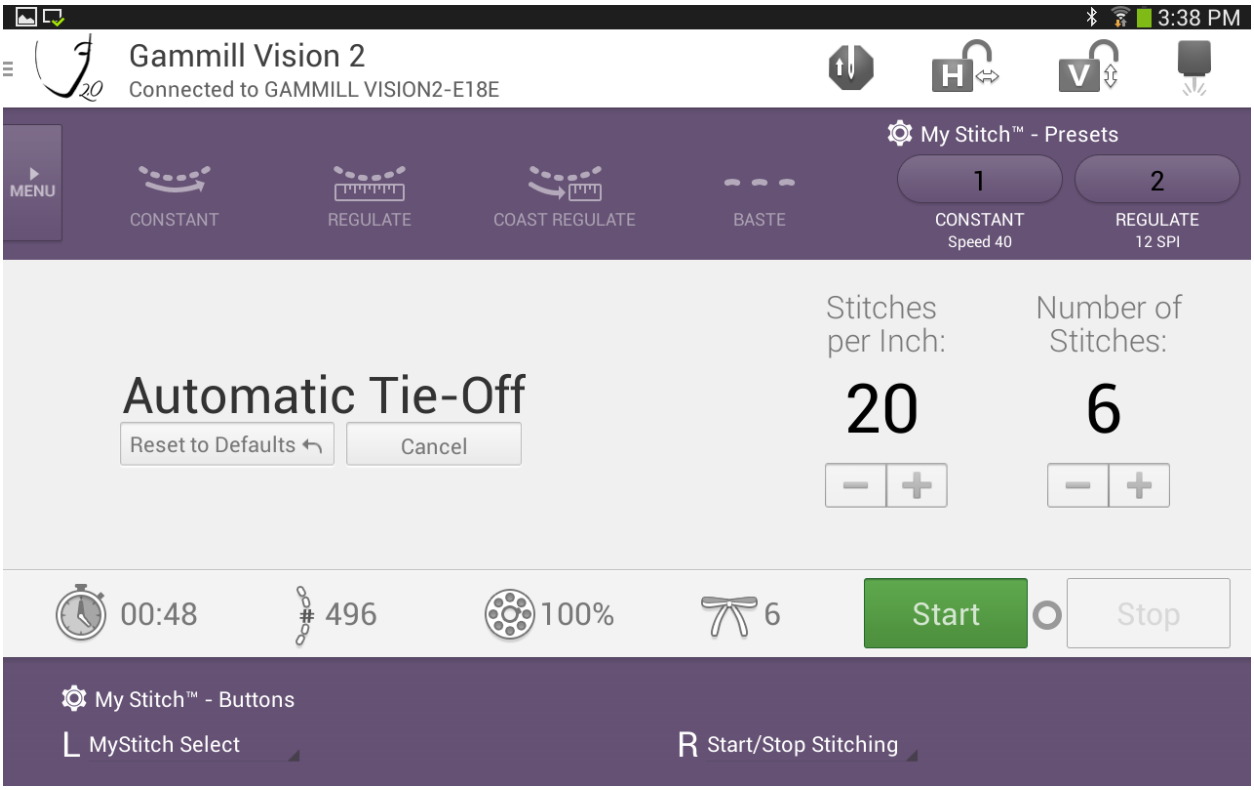


- Touch the box to select the option to lock the button assignments.


3:38 PM
Gammill Vision 2
Connected to GAMMILL VISION2-E18E
My Stitch™ - Buttons
You may assign different functions to the handle buttons on your Gammill Vision 2. Touch the button on the tablet screen, then choose an option from the menu that appears.
At least one of the buttons must be assigned to the option "Start/Stop Stitching".
Lock my button assignments, so they can't be changed.
OK
MENU
CONSTANT
REGULATE
00:48
496
100%
Start
Stop
My Stitch™ - Buttons
MyStitch Select
Start/Stop Stitching

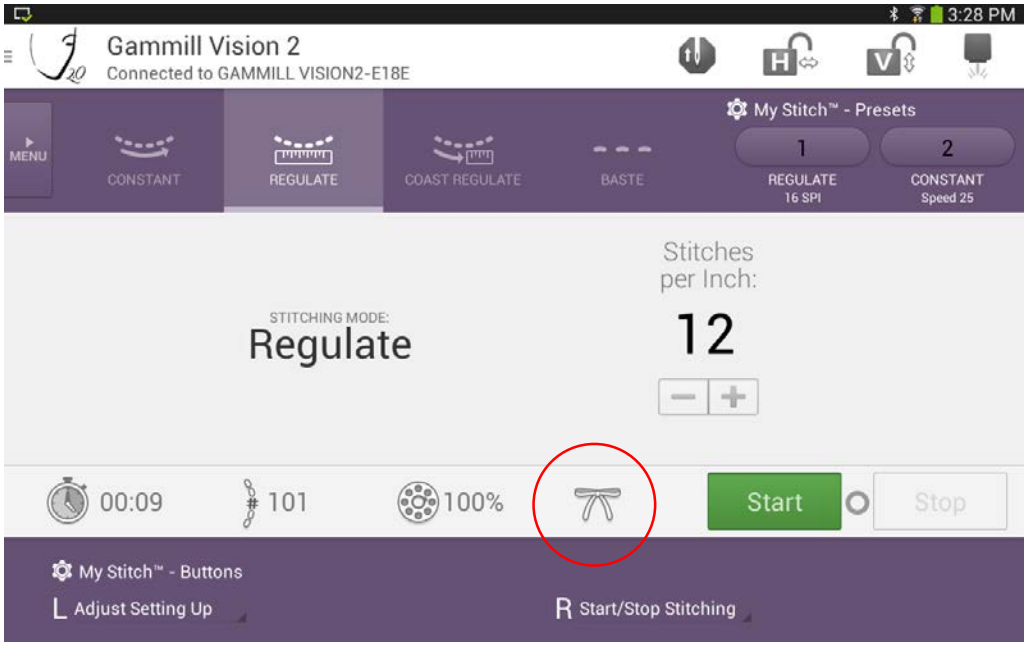
AUTOMATIC TIE-OFF FUNCTION

Secure stitching with the Automatic Tie-Off function that delivers a set number of stitches at a preselected density.



To access the Automatic Tie-Off:

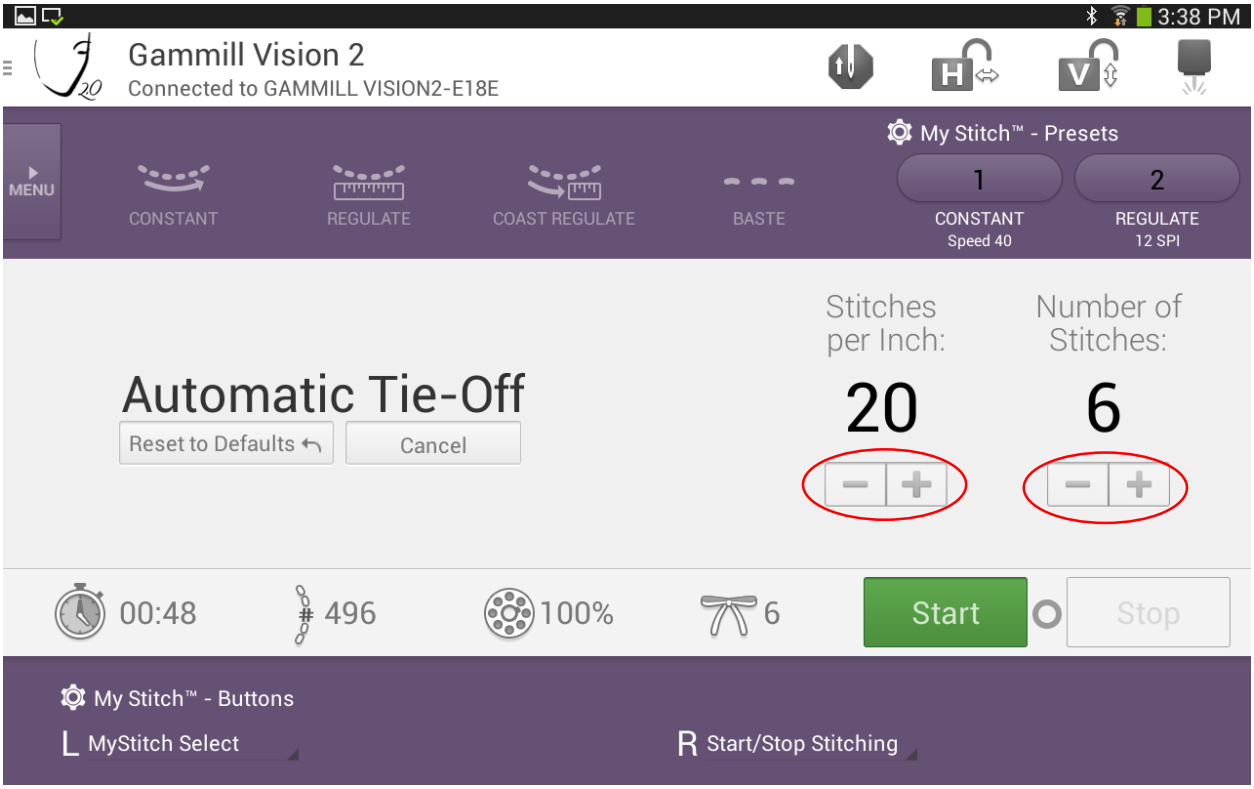
- Touch the **tied bow** icon to access the tie-off mode.



- Notice the stitching mode changes to Automatic Tie-Off in the mode section in the middle of the screen and the tied bow indicates the number of stitches left in the tie-off.

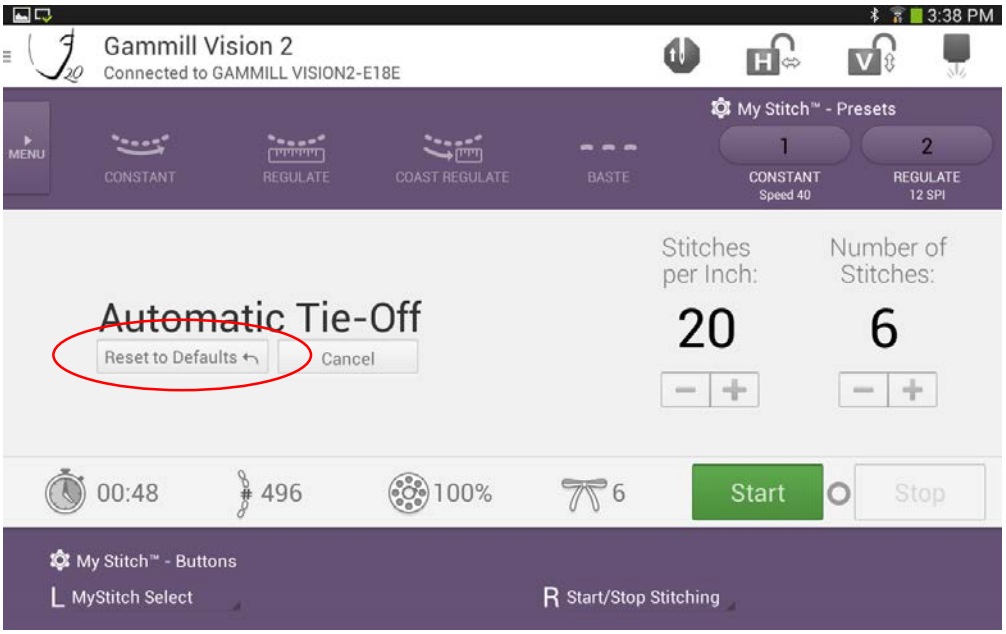
To set the Automatic Tie-Off:

- Touch the **plus** or **minus sign** below "Stitches per Inch" to adjust the stitch length. The Stitches per Inch may be adjusted from 12 to 60.
- Touch the **plus** or **minus sign** below "Number of Stitches" to adjust the number of stitches used in the tie-off. The Number of Stitches may be adjusted from 2 to 15.



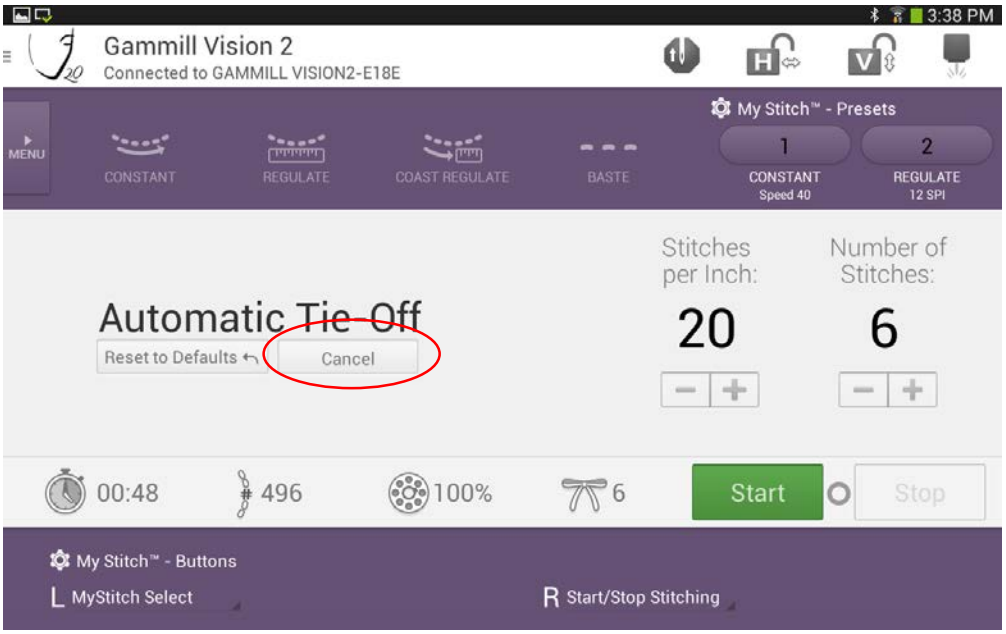
To reset the defaults for the Automatic Tie-Off:

- Touch the **Reset to Defaults** button located under the Automatic Tie-Off label in the center of the screen.
- Notice the Stitches per Inch and Number of Stitches settings return to their original settings.



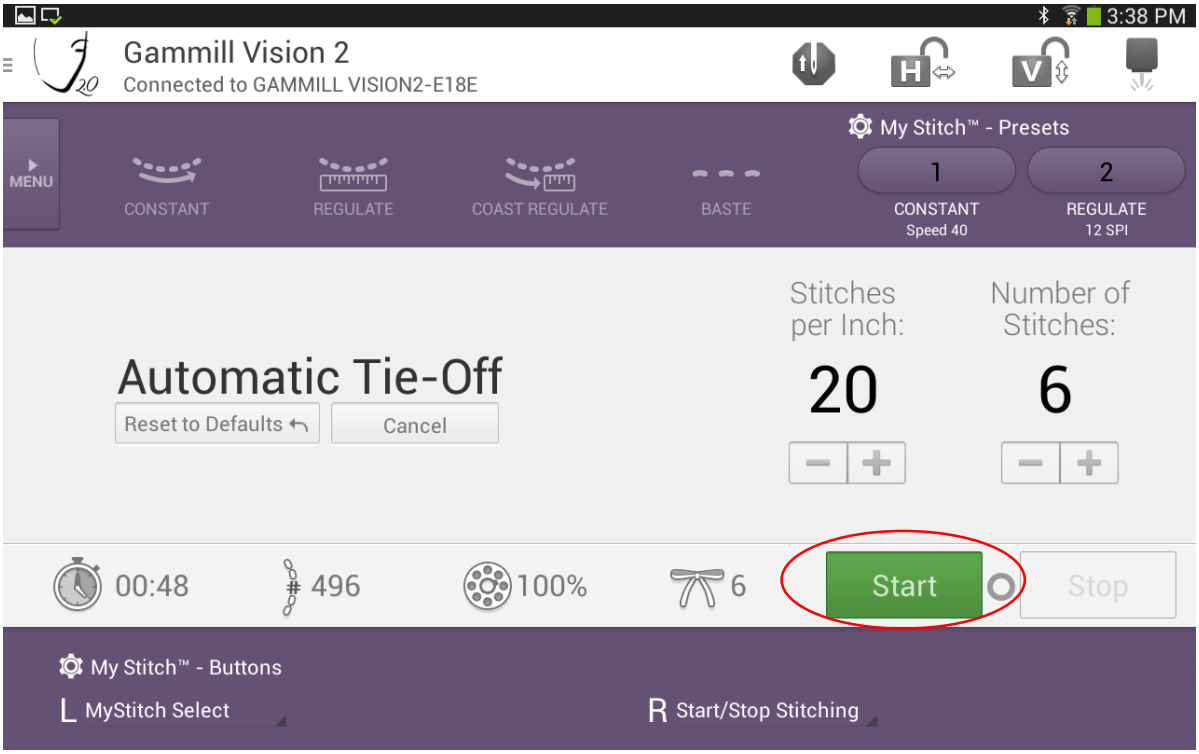
To cancel the Automatic Tie-Off:

- Touch the **Cancel** button located under the Automatic Tie-Off label in the center of the screen.
- Or touch the **tied bow** icon again to cancel.
- Notice the screen changes back to the mode and settings selected prior to entering the Automatic Tie-Off function.

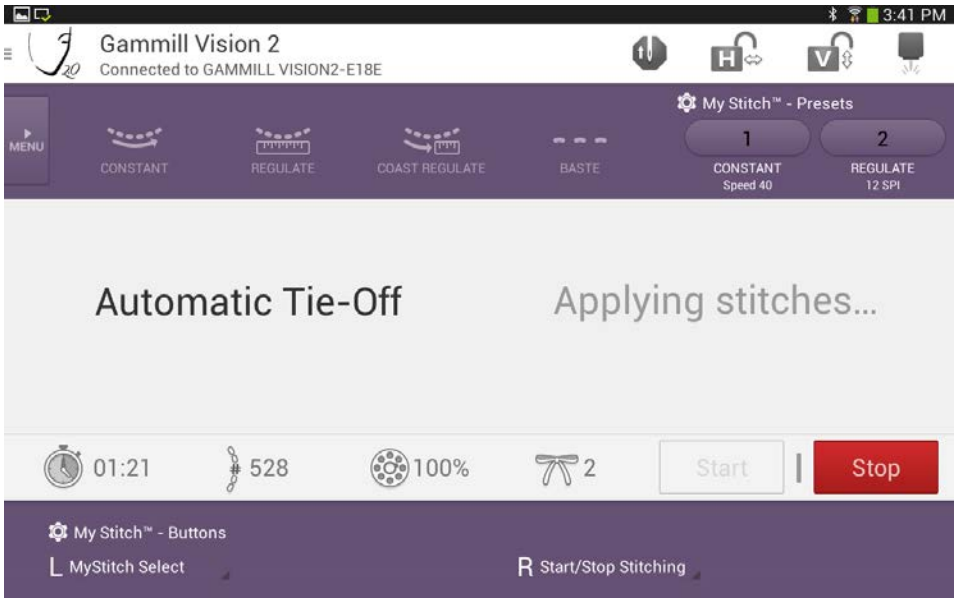


To execute an Automatic Tie-Off:

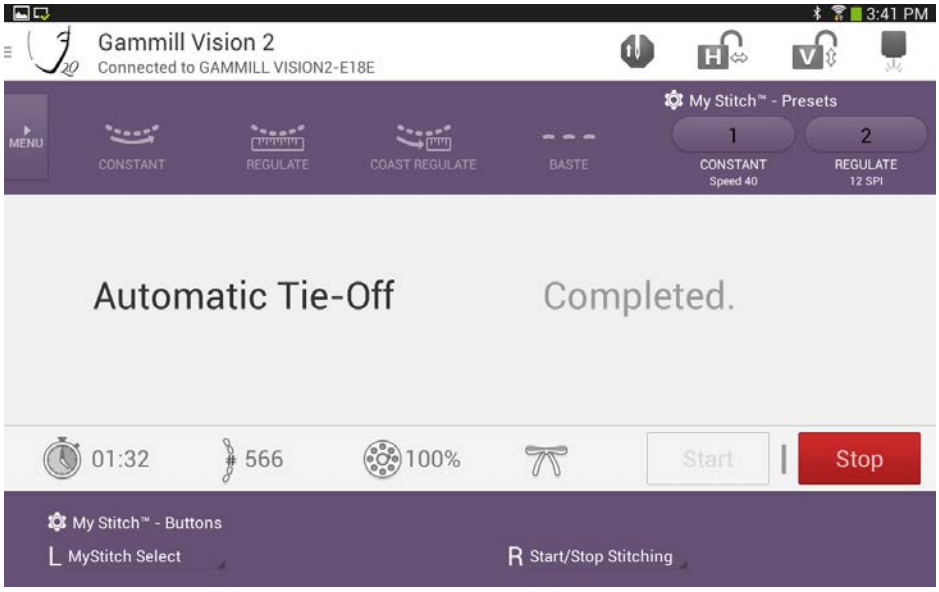
- Touch the **Start** button on the screen.
- Or press the handle button set to start/ stop stitching.



- Move the head.
- Notice the machine begins stitching as soon as the head moves. The number beside the tied bow also counts down as the stitches are delivered.



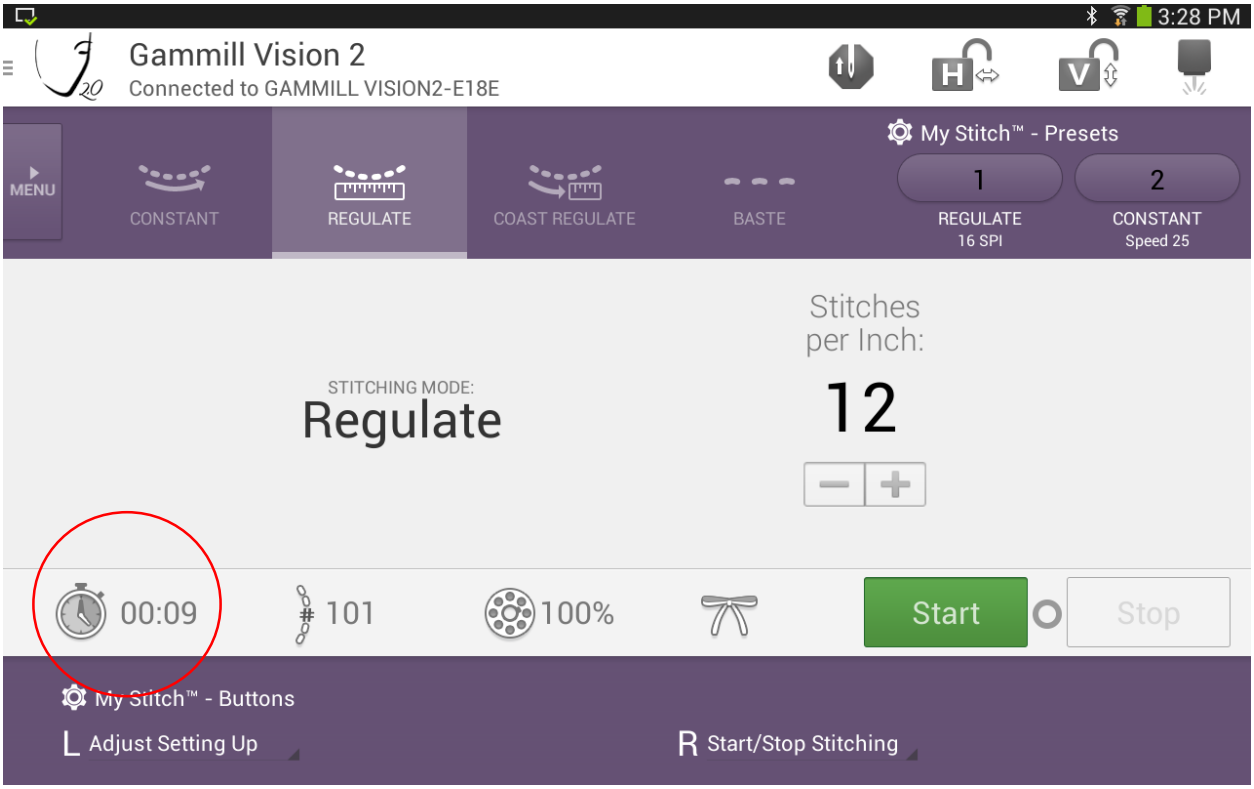
IF THE RED STOP BUTTON IS PRESSED DURING A TIE-OFF, THE CURRENT TIE-OFF WILL STOP BUT WILL NOT LEAVE THE TIE-OFF MODE. IF THE GREEN START BUTTON IS PUSHED AGAIN, THE TIE-OFF WILL START OVER RATHER THAN PICKING UP WHERE STOPPED.



WHEN THE AUTOMATIC TIE-OFF FUNCTION IS COMPLETE, THE SCREEN WILL CHANGE TO SHOW IT IS COMPLETED BRIEFLY AND THEN CHANGE BACK TO THE MODE AND SETTINGS SELECTED PRIOR TO ENTERING THE AUTOMATIC TIE-OFF FUNCTION.

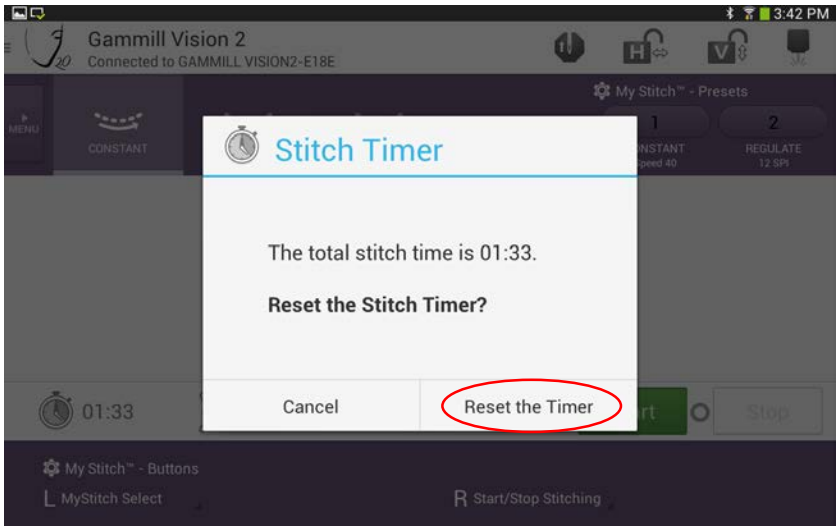
STITCH TIMER FUNCTION

The Stitch Timer function continually monitors the amount of time spent stitching making it easy to keep track of the time spent on a project.

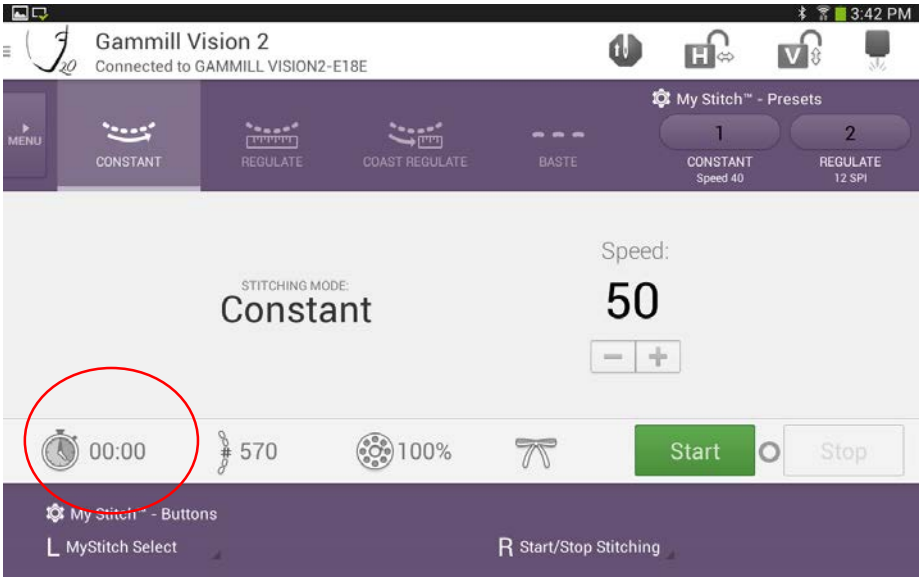


To reset the Stitch Timer:

- Touch the **Stitch Timer** icon.
- Notice a window appears asking if you are sure you want to reset the Stitch Timer.
- Touch the **Reset the Timer** button to reset the time.

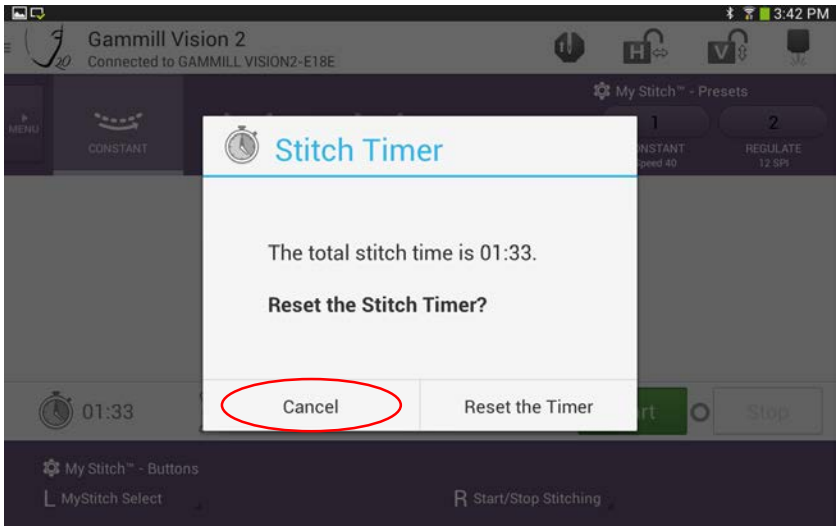


- Notice the timer display resets to 00:00.



To cancel resetting the Stitch Timer:

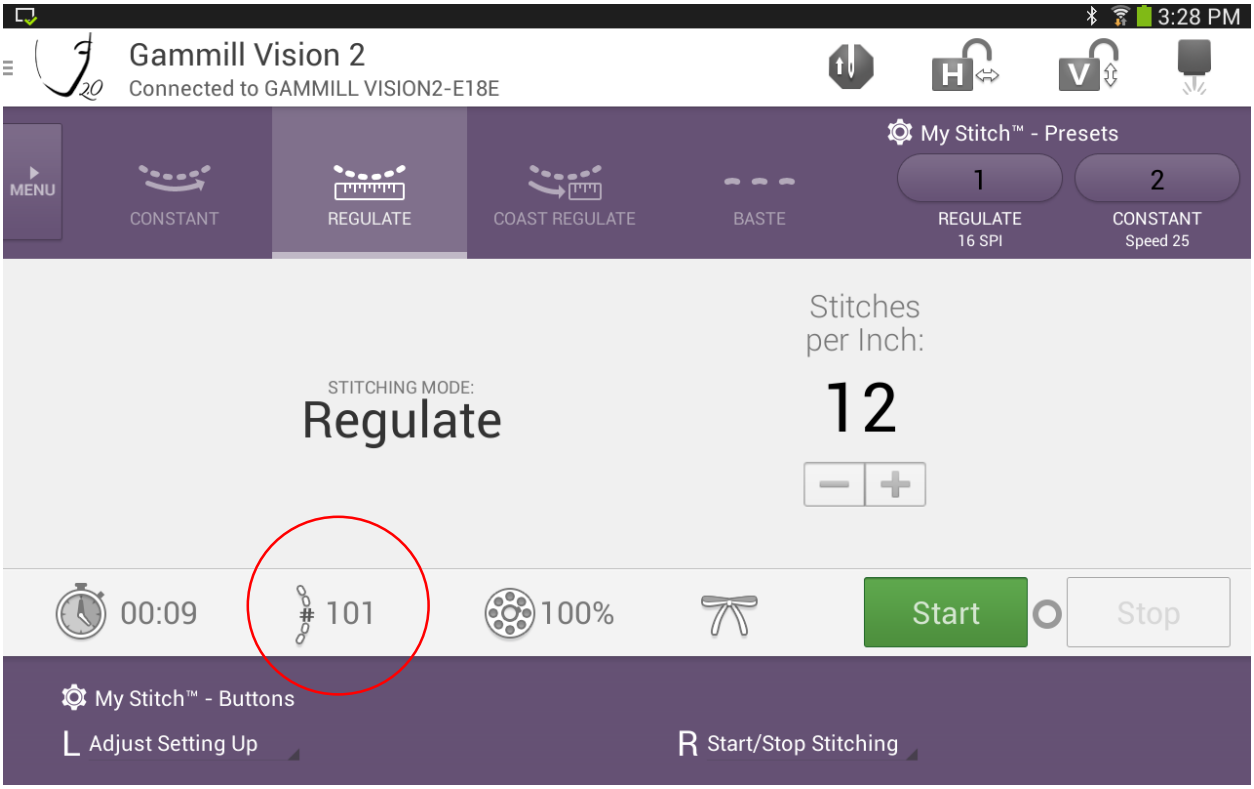
- Touch the **Cancel** button on the Stitch Timer window.
- Notice the window closes.



TIME IS DISPLAYED IN AN HH:MM:SS FORMAT WHERE HH IS THE NUMBER OF HOURS, MM IS THE NUMBER OF MINUTES, AND SS IS THE NUMBER OF SECONDS. IF THE TIMER EXCEEDS 99:59:59, THE TIMER WILL AUTOMATICALLY RESET TO 00:00.

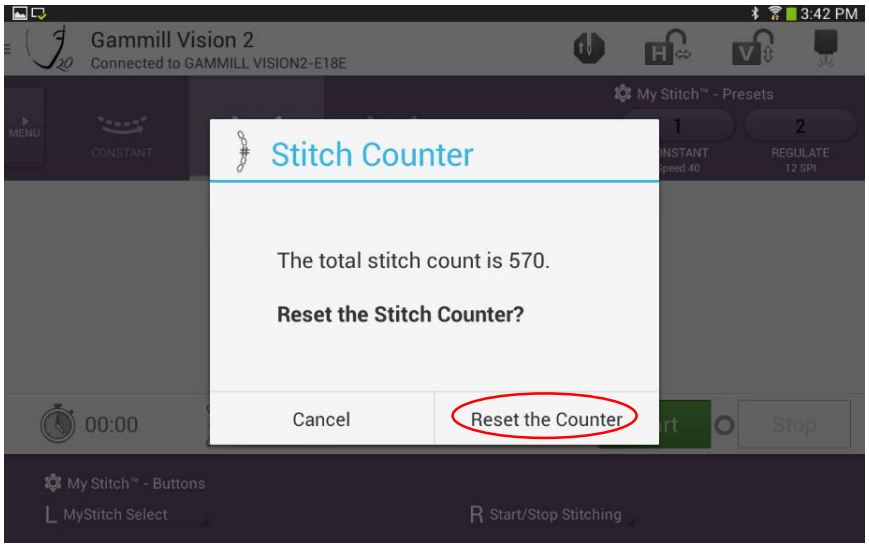
STITCH COUNTER FUNCTION

The Stitch Counter continually counts the number of stitches taken making it easy to track the number of stitches in a project.



To reset the Stitch Counter:

- Touch the **Stitch Timer** icon.
- Notice a window appears asking if you are sure you want to reset the Stitch Timer.



- Tap the **Reset the Counter** button to reset the count.
- Notice the count display resets to 0.

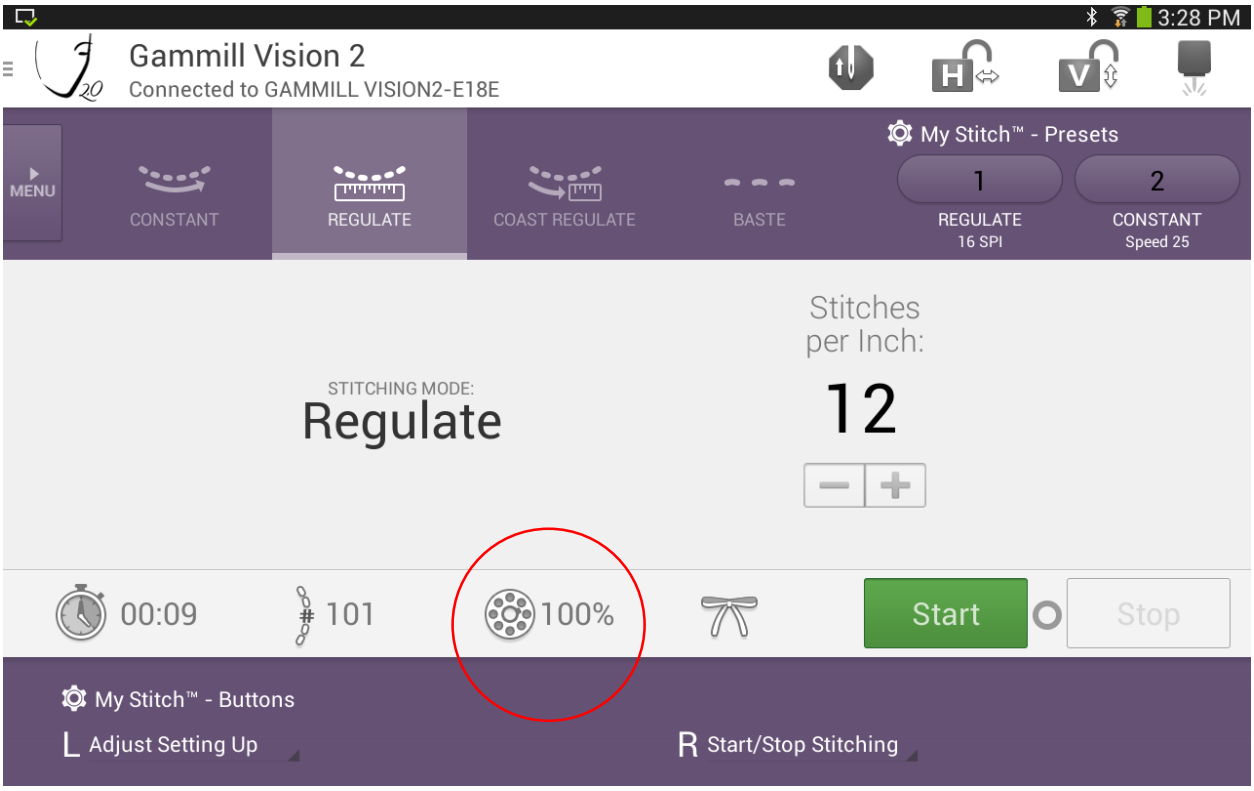
To cancel resetting the Stitch Counter:

- Tap the **Cancel** button on the Stitch Counter window.
- Notice the window closes.

THIS INDICATOR DISPLAYS THE NUMBER OF STITCHES TAKEN, WITH A MAXIMUM OF 999,999 ALLOWED. AT THIS POINT, THE INDICATOR WILL AUTOMATICALLY RESET TO 0.

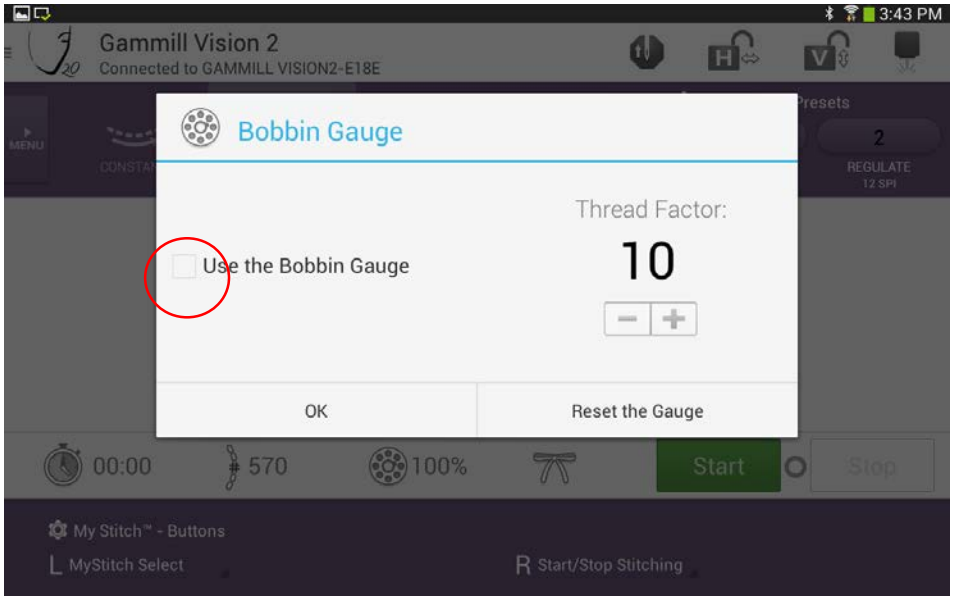
BOBBIN GAUGE FUNCTION

The Bobbin Gauge function monitors the amount of top thread used to estimate usage of the bobbin thread displaying a percentage of the amount of the bobbin thread remaining.



To use the Bobbin Gauge:

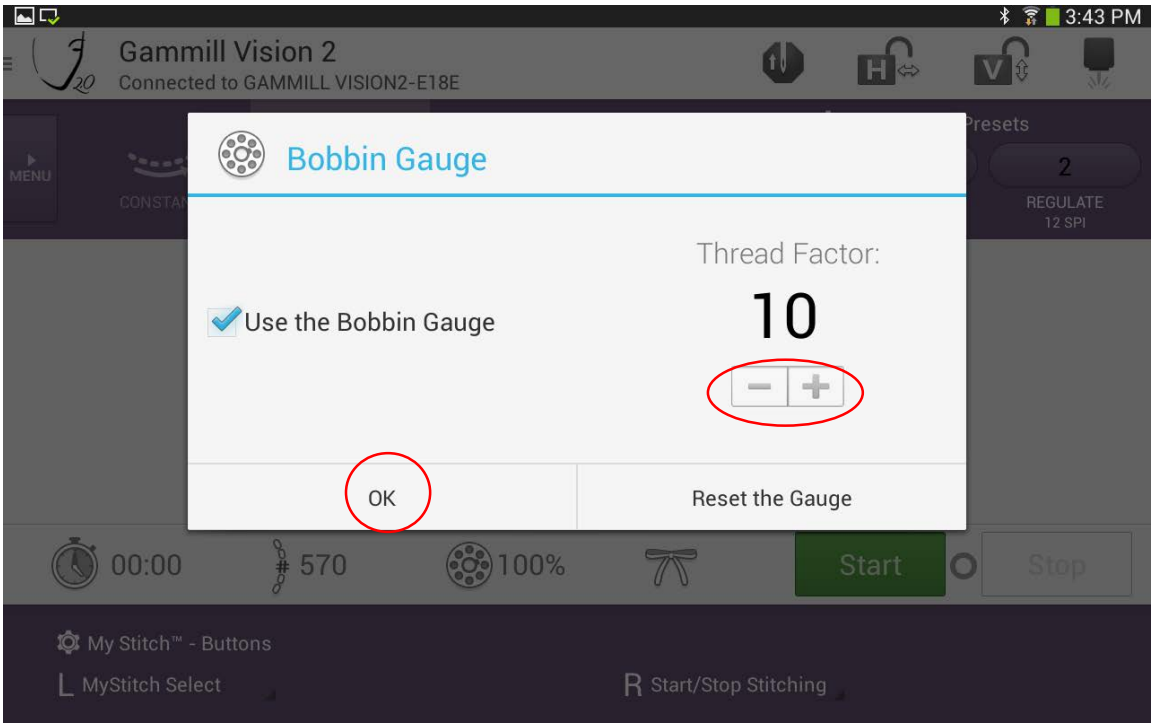
- Tap the **Bobbin Gauge** icon.
- Notice the Bobbin Gauge settings window appears.



- Tap the box beside the "Use the Bobbin Gauge" message.
- Notice a check mark appears indicating the Bobbin Gauge is active.

To set the Thread Factor:

- Touch the **plus** or **minus sign** to adjust the Thread Factor up or down. The Thread Factor may be adjusted from 1 to 10.
- Set the Thread Factor higher for thinner threads.
- Set the Thread Factor lower for thicker threads.
- Tap the **OK** button.



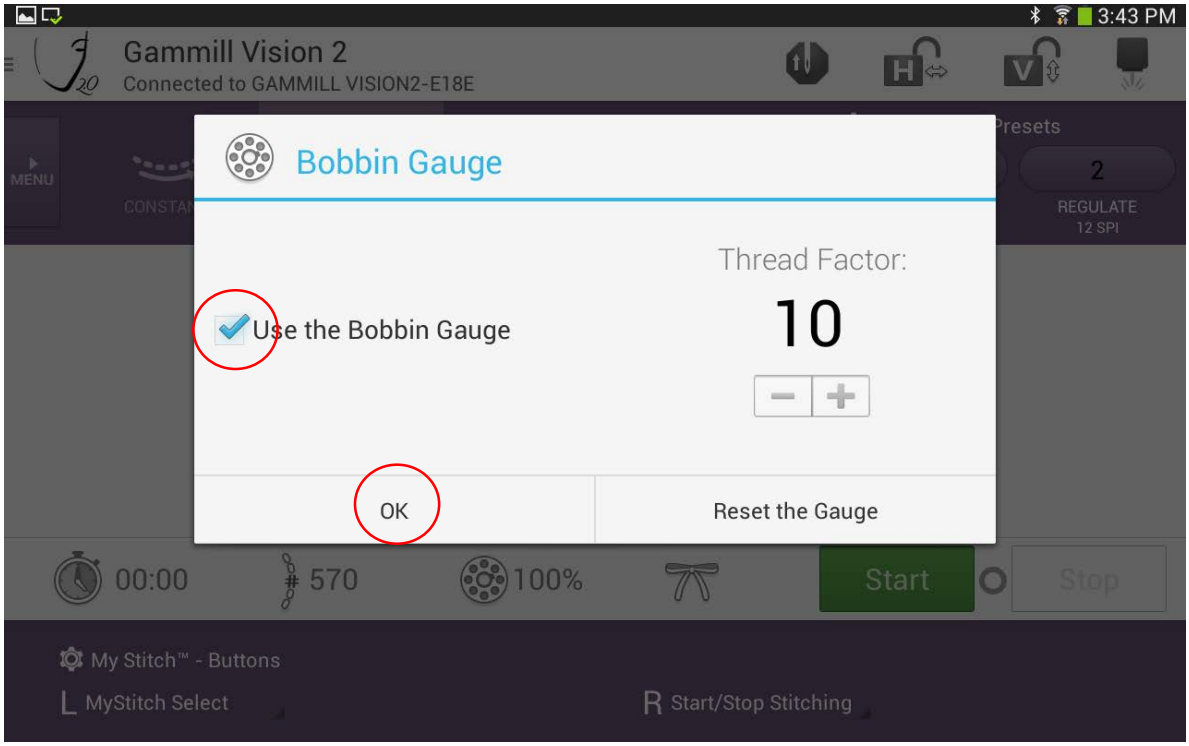
THE THREAD FACTOR IS A VALUE HELPS DETERMINE THE BOBBIN THREAD USAGE. THE BEST WAY TO THINK OF THE FACTOR IS TO RELATE IT TO THE THICKNESS OF THE BOBBIN THREAD. THE THICKER THE BOBBIN THREAD, THE LESS THREAD WILL FIT ON A BOBBIN. USE A LOWER NUMBER WHEN USING THICKER THREAD. ADJUST THE BOBBIN FACTOR AND OBSERVE WHEN THE ALARM OCCURS VERSUS THE ACTUAL AMOUNT OF THREAD LEFT ON YOUR BOBBINS. MAKE ADJUSTMENTS BASED ON THIS FEEDBACK UNTIL YOU OBTAIN THE DESIRED RESULTS.

To reset the Bobbin Gauge:

- Tap the **Reset the Gauge** button.
- Notice the Bobbin Gauge on the main screen is reset to 100%

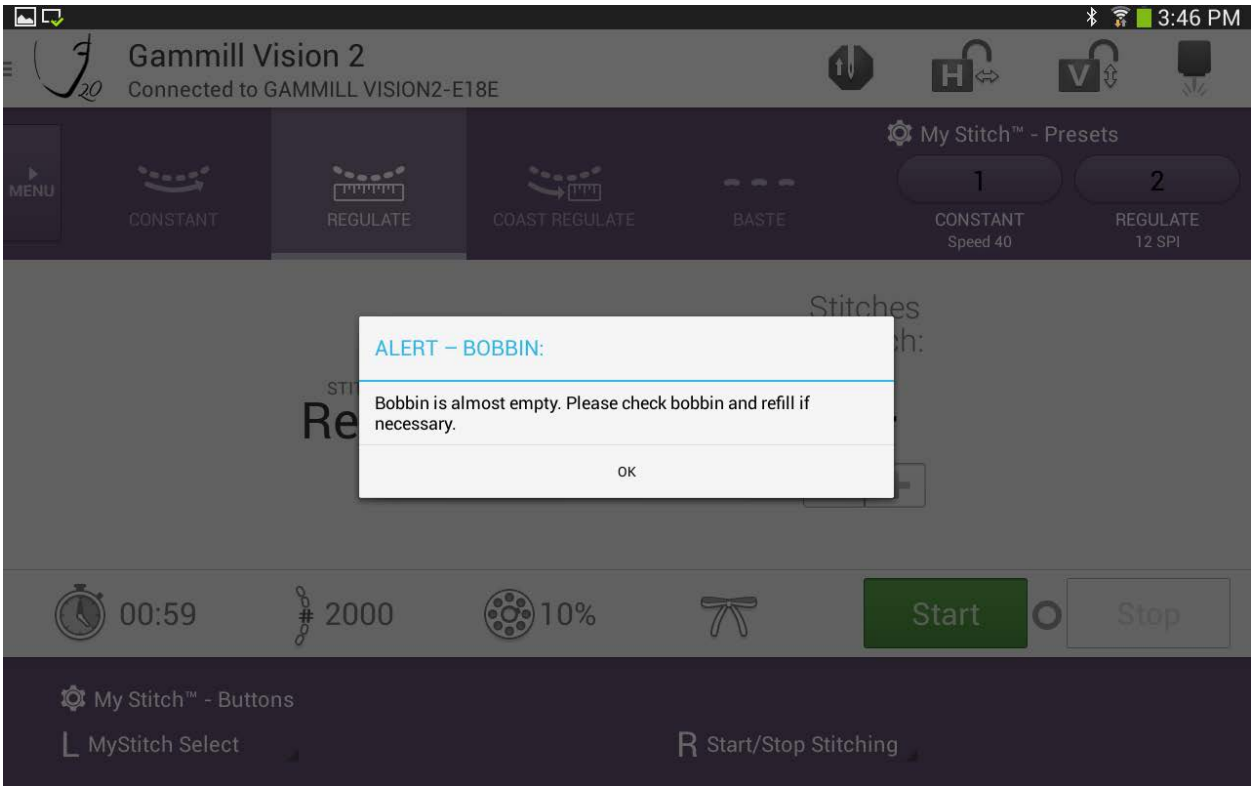
To disable the Bobbin Gauge:

- Tap the checked box beside the "Use the Bobbin Gauge" message.
- Notice the check mark disappears indicating the Bobbin Gauge is now inactive.
- Touch the **OK** button.



- Notice the window closes and the Bobbin Gauge icon is greyed out on the main screen and no percentage is shown.

As you stitch, the bobbin gauge percentage will decrease. When the percentage reaches 10%, the system will issue an alert to warn you that the bobbin is almost empty.

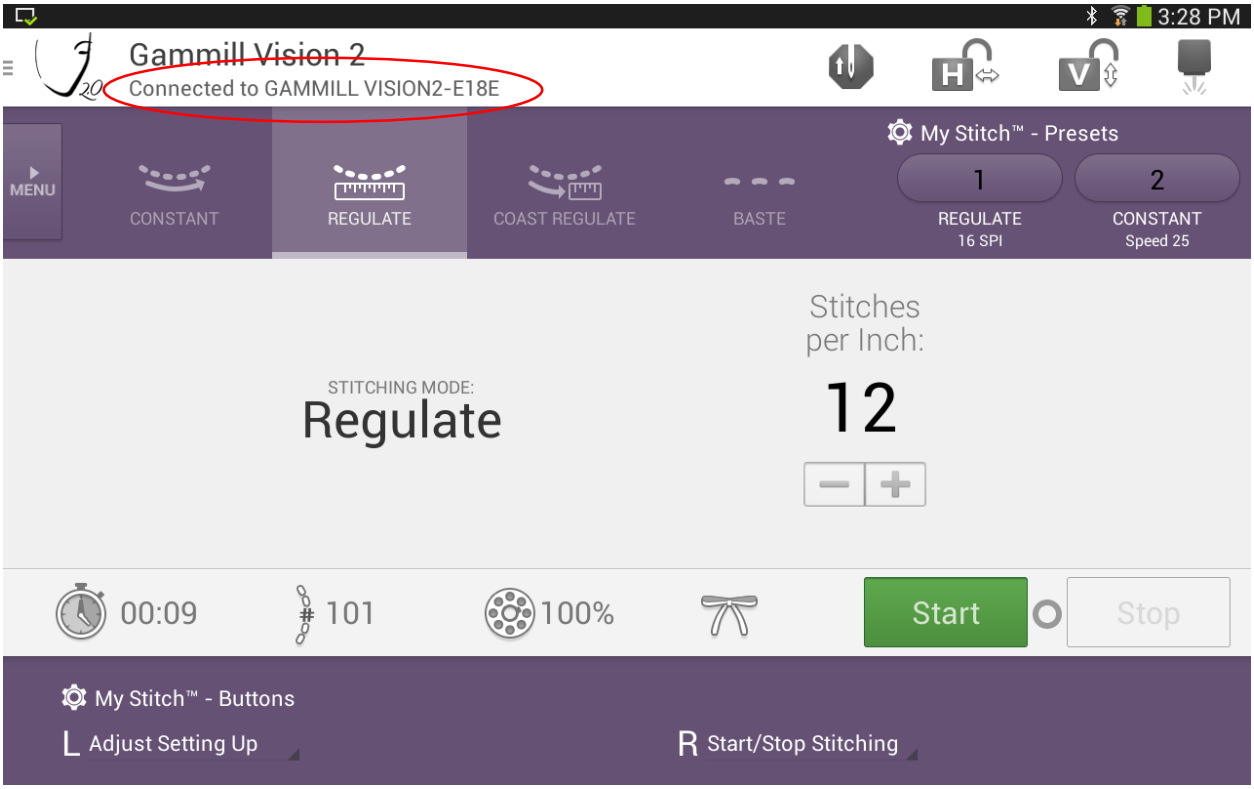


SINCE IT IS NOT POSSIBLE TO DIRECTLY MEASURE THE AMOUNT OF BOBBIN THREAD REMAINING, THE SYSTEM MUST USE THE USAGE OF THE TOP THREAD TO GAUGE THE USE OF THE BOBBIN THREAD. THE SYSTEM ASSUMES SOME THINGS SUCH AS TENSION, BOBBIN CAPACITY, AND HOW FULL THE BOBBIN IS FILLED TO, BUT PROPER ESTIMATION OF THE REMAINING BOBBIN THREAD STILL RELIES ON INPUT FROM THE OPERATOR.

THE BOBBIN GAUGE MAY BE USED, BUT ONLY THE ALERT DISABLED. SEE THE SECTION ON THE ALERT SCREEN FOR ADDITIONAL INFORMATION ON THIS CAPABILITY.

CONNECTION INFORMATION

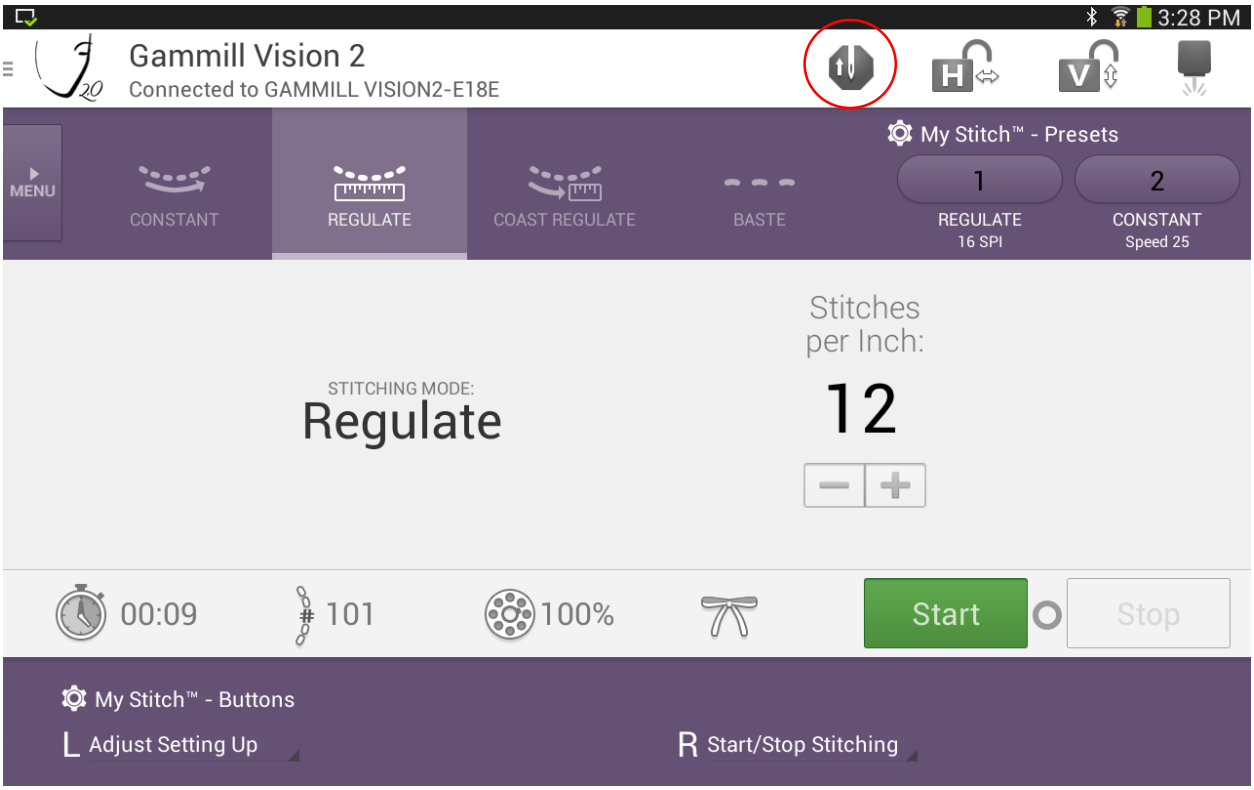
The Vision™ 2.0 Application communicates to the quilting system using Bluetooth. When connected, the text will read "Connected to Gammill Vision2-XXXX" where XXXX is the last 4 digits of the address of the system it is connected to.



IF THE APPLICATION IS NOT CONNECTED TO A SYSTEM, IT WILL READ "DISCONNECTED". IF THIS IS THE CASE, COMMUNICATION NEEDS TO BE ESTABLISHED. SEE THE SECTION ON BLUETOOTH CONNECTION FOR ADDITIONAL INFORMATION ON HOW TO CONNECT THE TABLET TO THE SYSTEM.

NEEDLE STOP POSITION

The top bar in the user interface contains several icons allowing quick and easy use of the machine. The first of these icons controls the position of the needle when stitching stops.



To stop stitching with the needle down:

- Tap the **Needle Stop Position** icon so the needle indicates the down position.
- Notice, when stitching stops, the needle stops in the down position.

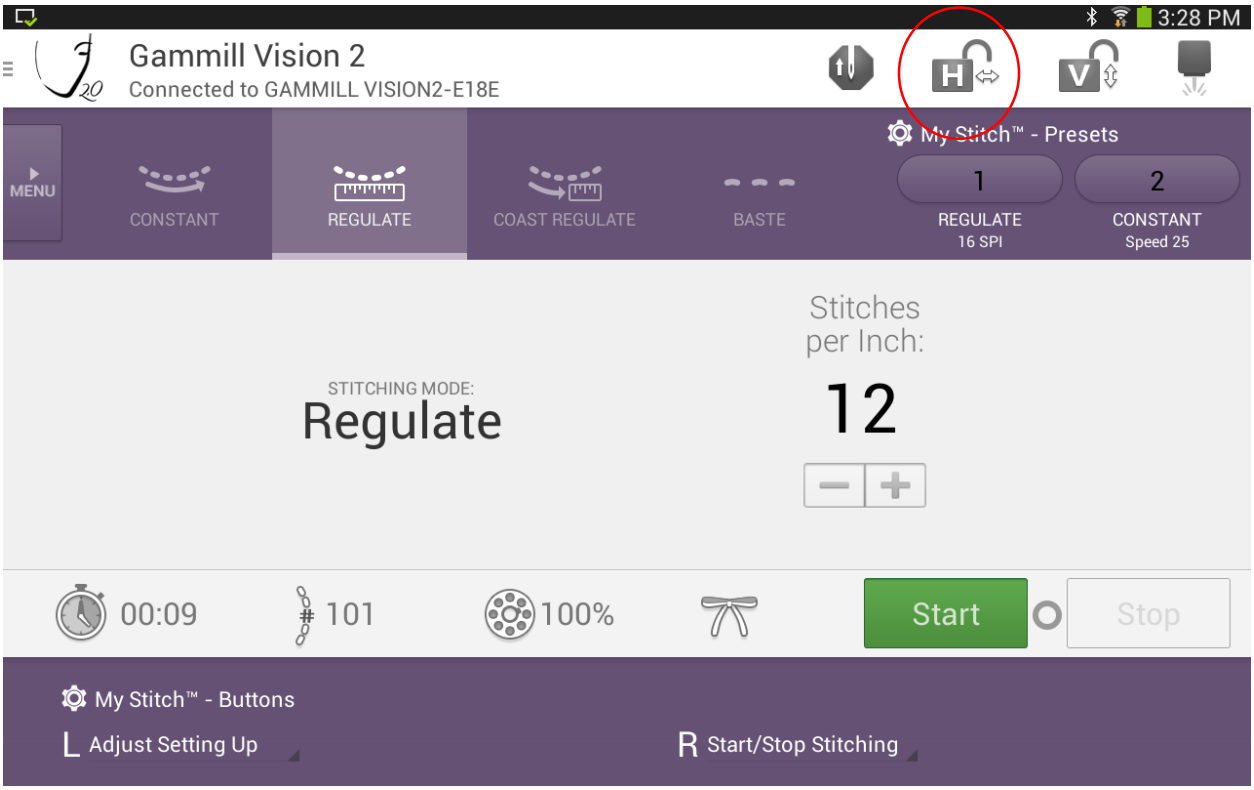
To stop stitching with the needle up:

- Tap the **Needle Stop Position** icon so the needle indicates the up position.
- Notice, when stitching stops, the needle stops in the up position.

WHEN USING THE NEEDLE DOWN POSITION, USE OF A SINGLE STITCH WILL RESULT IN THE NEEDLE STOPPING IN THE UP POSITION FOR THE FIRST PRESS. SUBSEQUENT PRESSES OF THE SINGLE STITCH BUTTON WILL RESULT IN FULL STITCHES TAKEN.

HORIZONTAL CHANNEL LOCK

The Horizontal Channel Lock Icon limits the motion of the machine to a horizontal direction, not allowing any vertical movement. This feature aids in creating perfectly straight lines whether for basting or stitching.



To engage the Horizontal Channel Lock:

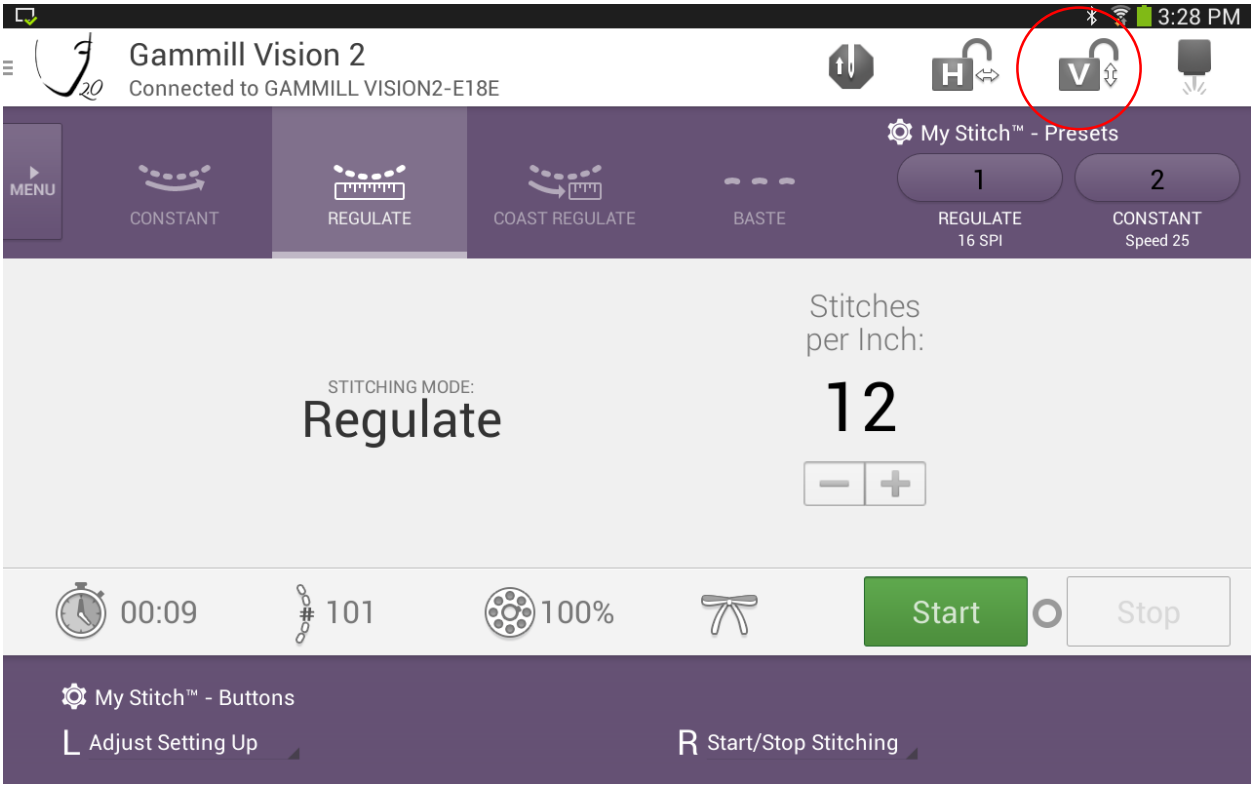
- Tap the **open Horizontal Channel Lock** icon.
- Notice the icon locks indicating the channel lock is engaged and the machine only moves in a horizontal direction left or right, but cannot move up or down vertically.

To disengage the Horizontal Channel Lock:

- Tap the **closed Horizontal Channel Lock** icon.
- Notice the icon unlocks indicating the channel lock is disengaged and the machine moves freely in all directions.

VERTICAL CHANNEL LOCK

The Vertical Channel Lock Icon limits the motion of the machine to a vertical direction, not allowing any horizontal movement. This feature aids in creating perfectly straight lines whether for basting or stitching.



To engage the Vertical Channel Lock:

- Tap the **open Vertical Channel Lock** icon.
- Notice the icon locks indicating the channel lock is engages and the machine only moves in a vertical direction up or down, but cannot move left or right horizontally.

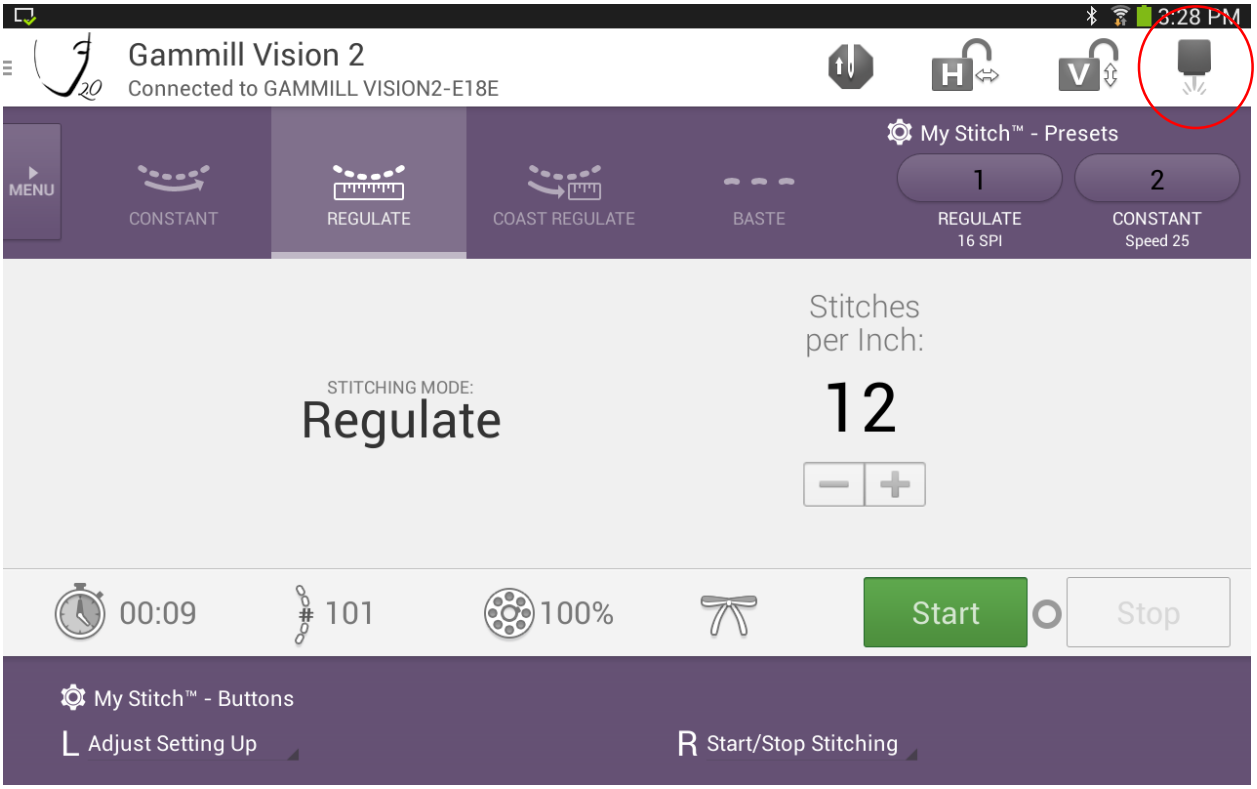
To disengage the Vertical Channel Lock:

- Tap the **closed Vertical Channel Lock** icon.
- Notice the icon unlocks indicating the channel lock is disengaged and the machine moves freely in all directions.

LASER

The Laser icon turns the laser on or off with the tap of a finger.

	⚠ CAUTION Laser Radiation. Avoid direct exposure to beam.

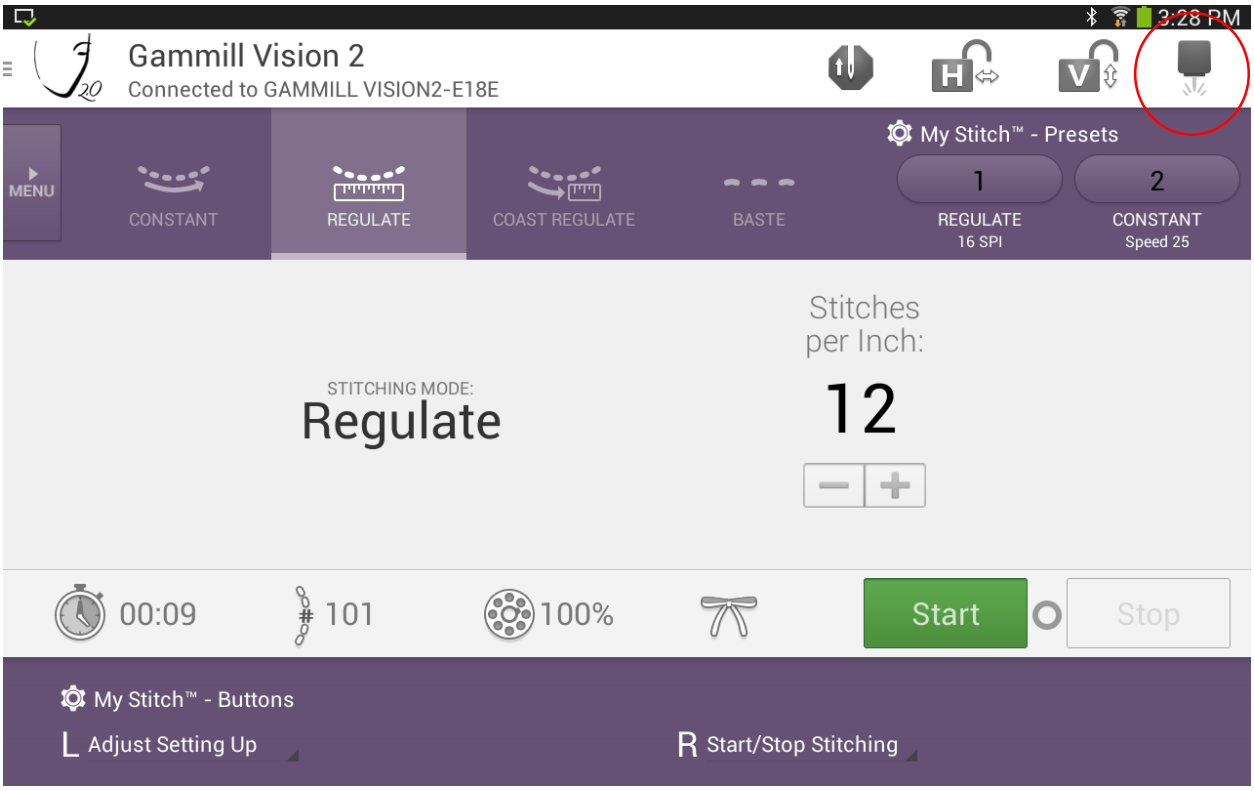


To turn the laser on:

- Touch the greyed **Laser** icon.
- Notice laser on the Laser icon turns red indicating that the laser is on.

To turn the laser off:

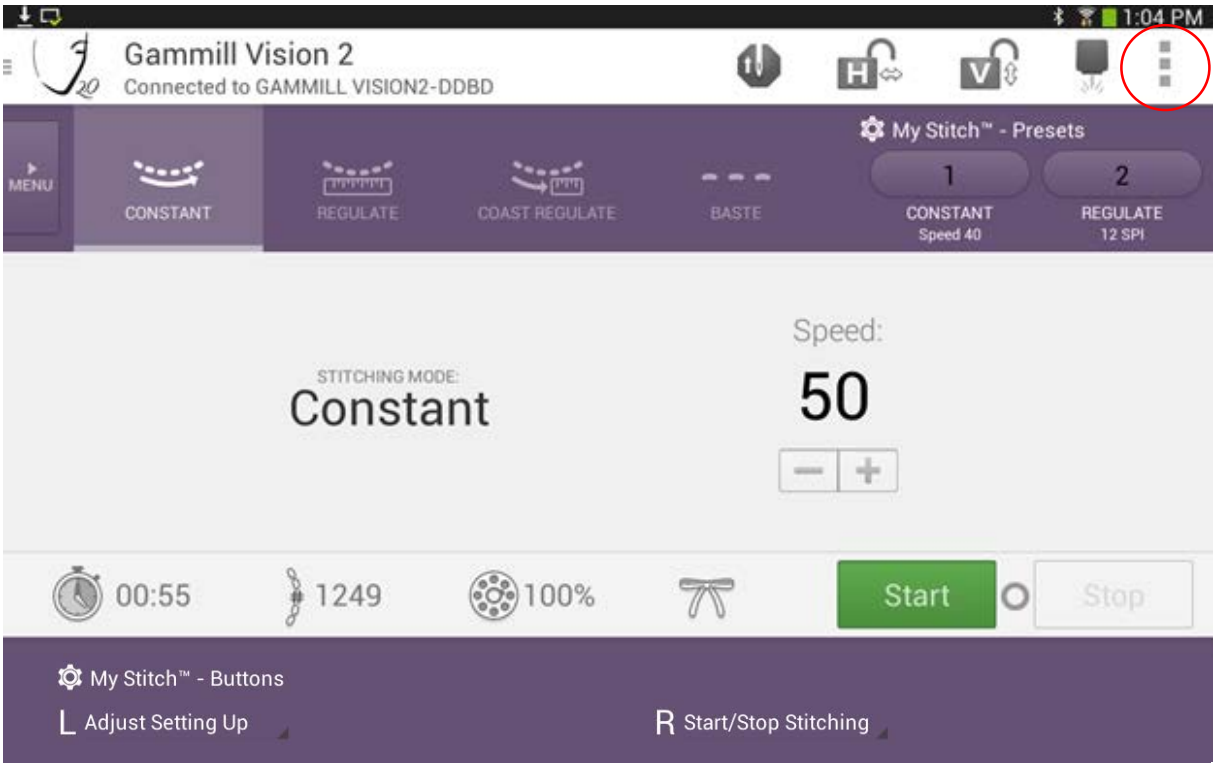
- Touch the red **Laser** icon.
- Notice the laser on the Laser icon turns grey indicating that the laser is off.



THIS FUNCTION CONTROLS THE LASER, WHETHER PLUGGED IN TO THE FRONT OR REAR OF THE MACHINE. THE INTENSITY (SPOT SIZE) OF THE LASER IS ALSO USER ADJUSTABLE, AND IS EXPLAINED IN THE LASER SETTINGS SECTION.

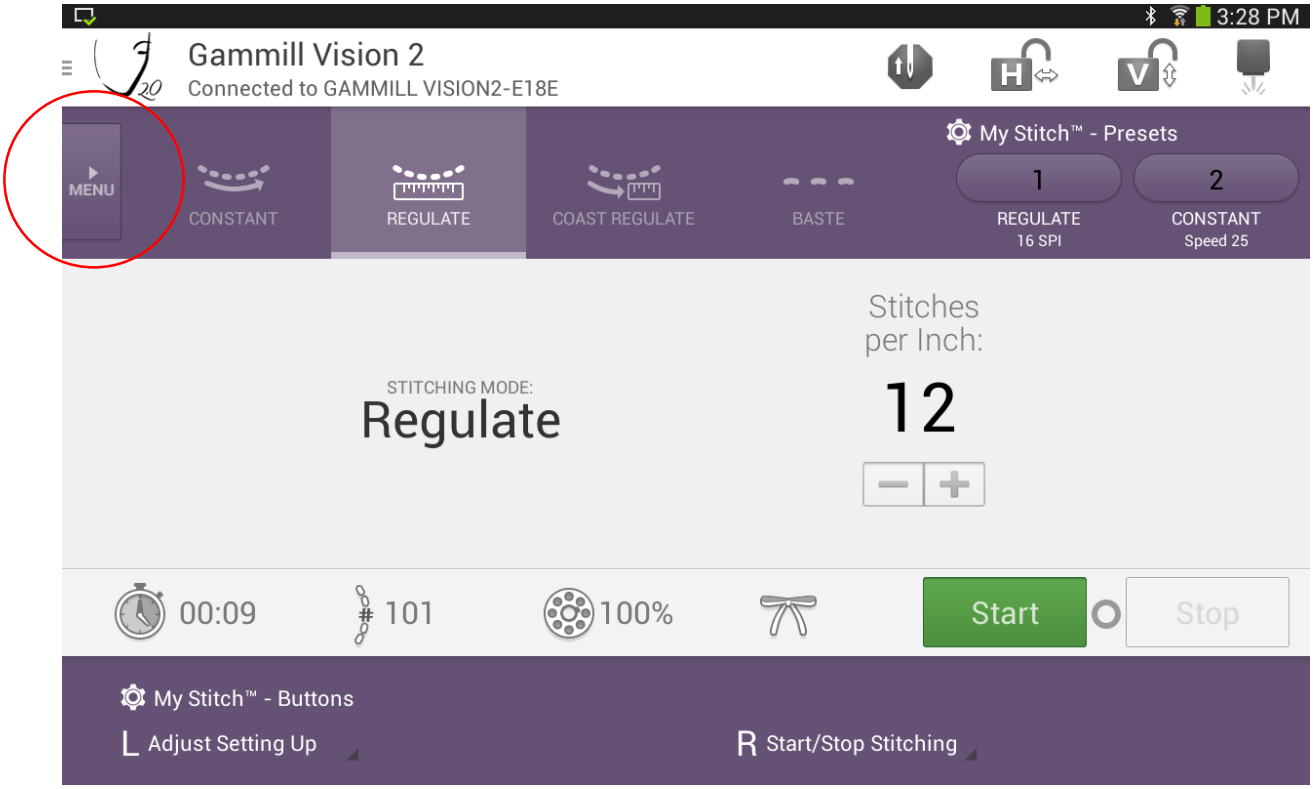
ADDITIONAL FEATURES – FUTURE ENHANCEMENTS

The Additional Features Indicator allows access to new features as they become available in future software updates. At this time, there are no additional features to access, so the icon is not visible.



MAIN MENU

The Main Menu offers access to many of the settings and services not regularly used during quilting.

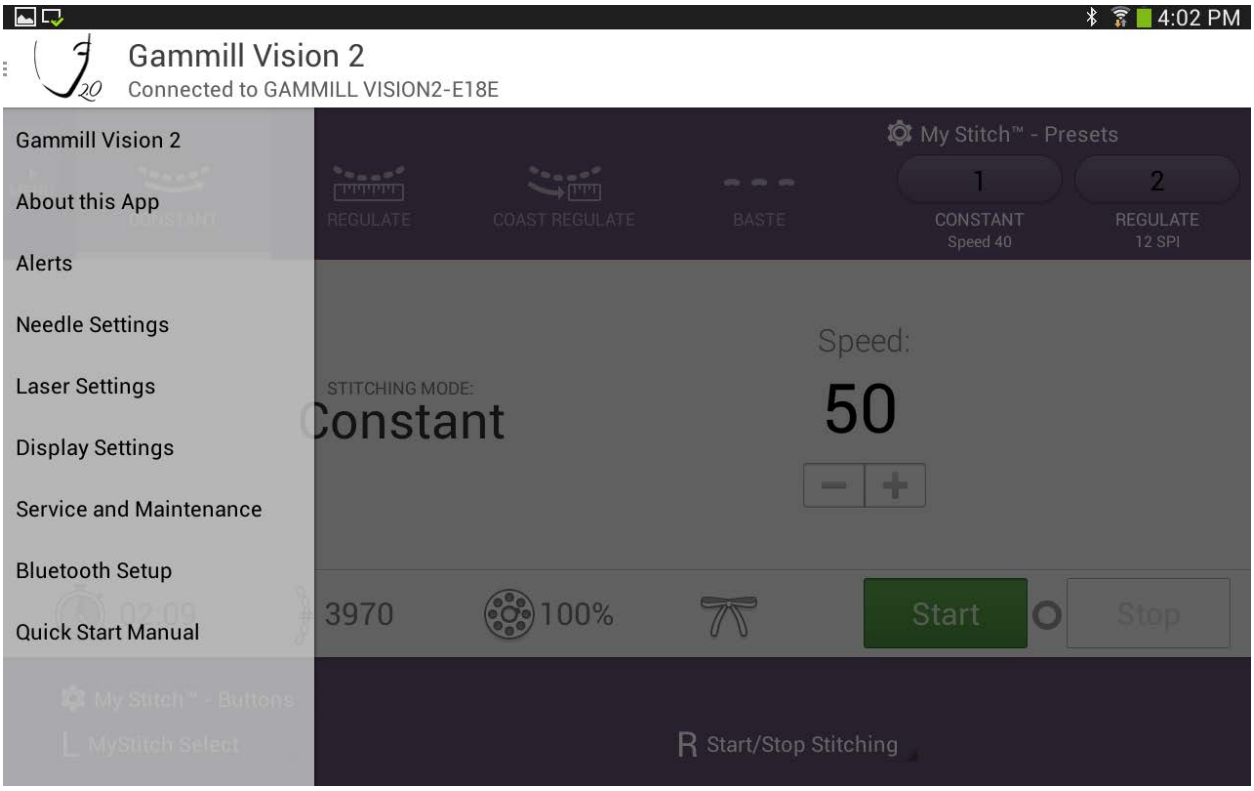


To access the Main Menu:

- Touch the **Menu** button.

To select an item from the Main Menu:

- Touch the desired selection.



DETAILS ON ALL OF THE SCREENS FOUND IN THIS MENU CAN BE FOUND IN THE SETTINGS AND OTHER SCREENS SECTION.

GENERAL NAVIGATION

To leave any secondary screen and return to the main screen, press the left arrow in the top left corner of the screen.

1:07 PM
About This App
Vision 2.0 by Gammill
Gammill Vision 2 Application v.0.9.1
Android v.4.2.2
Bluetooth Module Firmware v.R109
Z-Motor Module Firmware v.R106
Gammill Quilting Systems - 1(800)659-8224
1452 Gibson Street, West Plains, MO 65775
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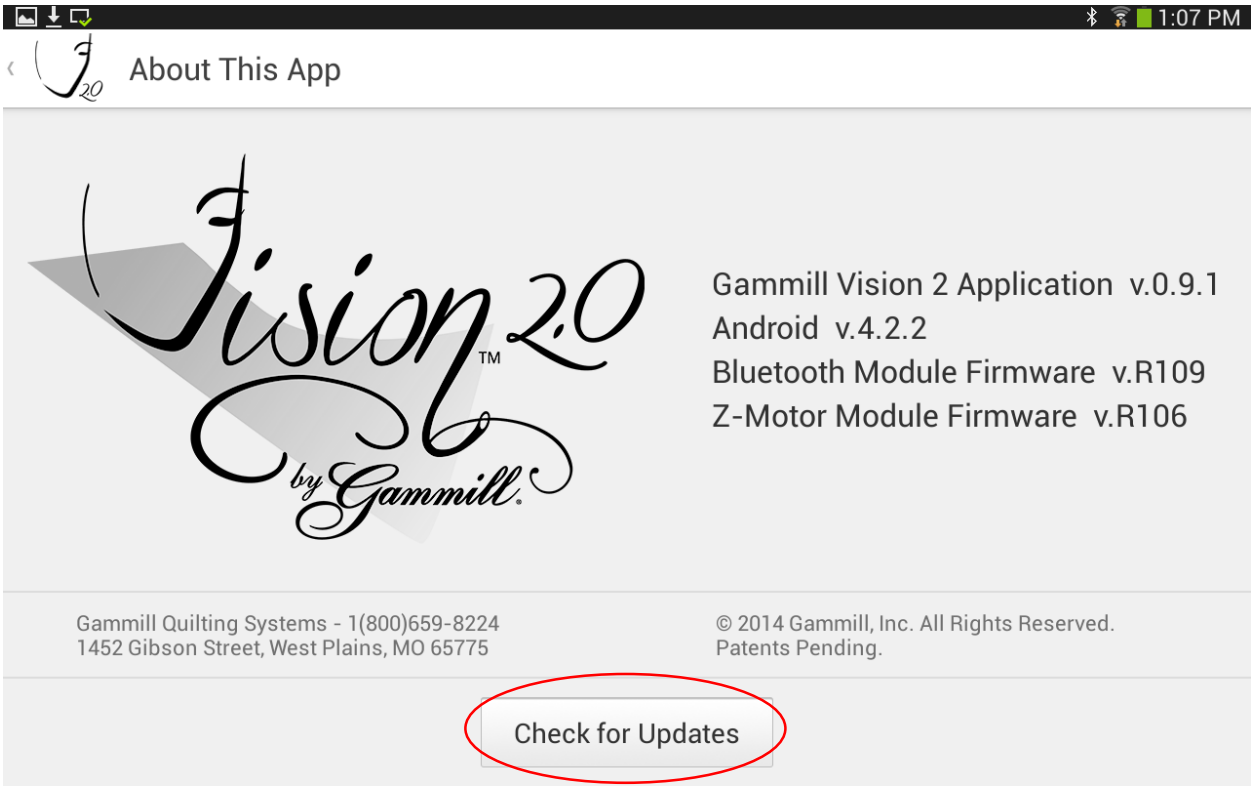
Patents Pending.
Check for Updates

GAMMILL VISION 2

The Gammill Vision 2 selection is a placeholder for the main window. As a result, it appears to do nothing when selected. This was required to properly set up the menu structure and is intentional.

ABOUT THIS APP

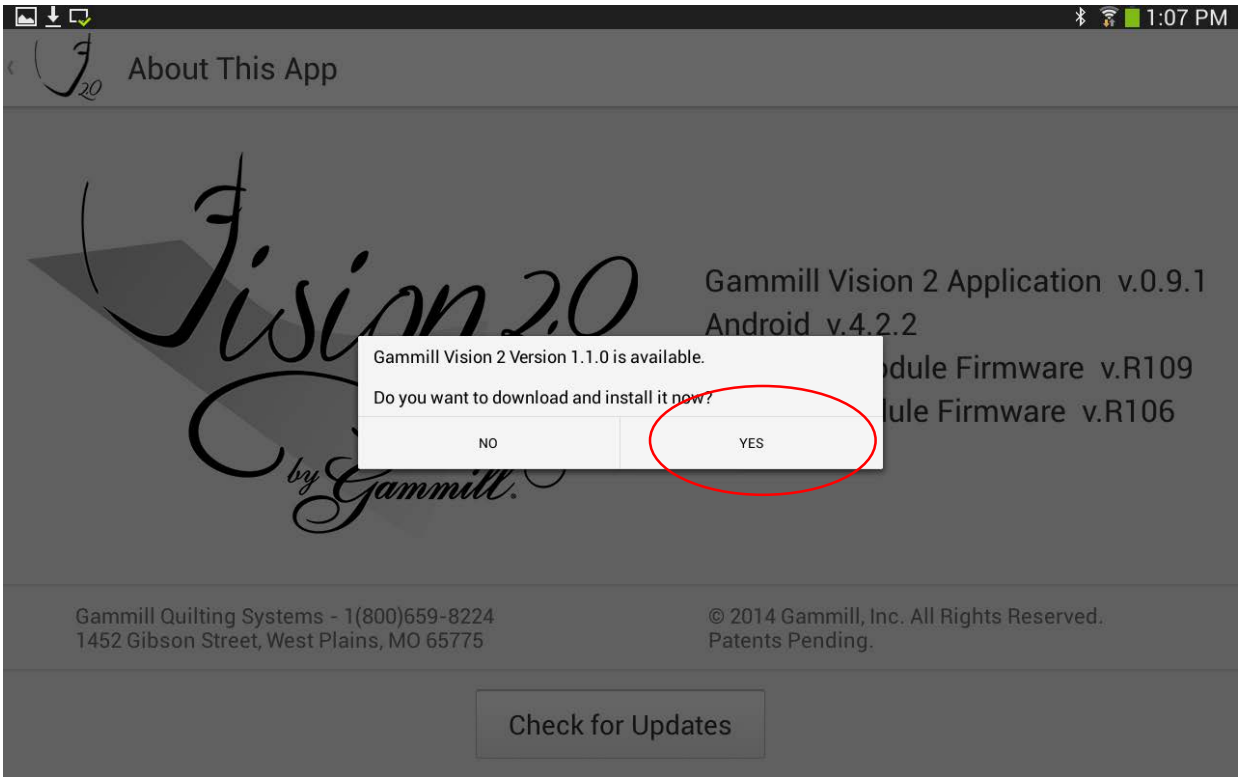
Access the About This App selection to learn information about your current version of the Vision™ 2.0 application and check for software updates.



To check for updates:

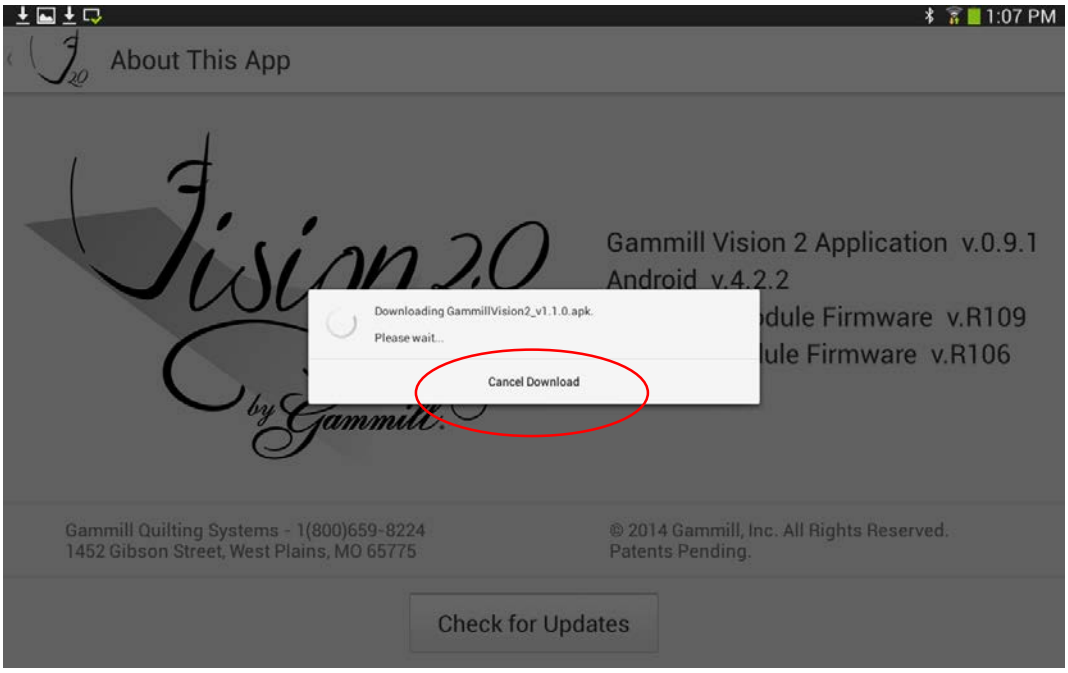
- Make sure the tablet is connected to the internet.
- Touch the **Check for Updates** button.
- Notice an update window opens indicating whether or not an update is available.

THIS FUNCTION REQUIRES THE TABLET TO BE CONNECTED TO THE INTERNET THROUGH A USER-SUPPLIED WIRELESS NETWORK. FOR INFORMATION ON HOW TO DO THIS, CONSULT THE DOCUMENTATION THAT CAME WITH THE TABLET.


1:07 PM
About This App
Gammill Vision 2 Application v.0.9.1
Android v.4.2.2
dule Firmware v.R109
lule Firmware v.R106
Gammill Vision 2 Version 1.1.0 is available.
Do you want to download and install it now?
NO
YES
Gammill Quilting Systems - 1(800)659-8224
1452 Gibson Street, West Plains, MO 65775
© 2014 Gammill, Inc. All Rights Reserved.
Patents Pending.
Check for Updates

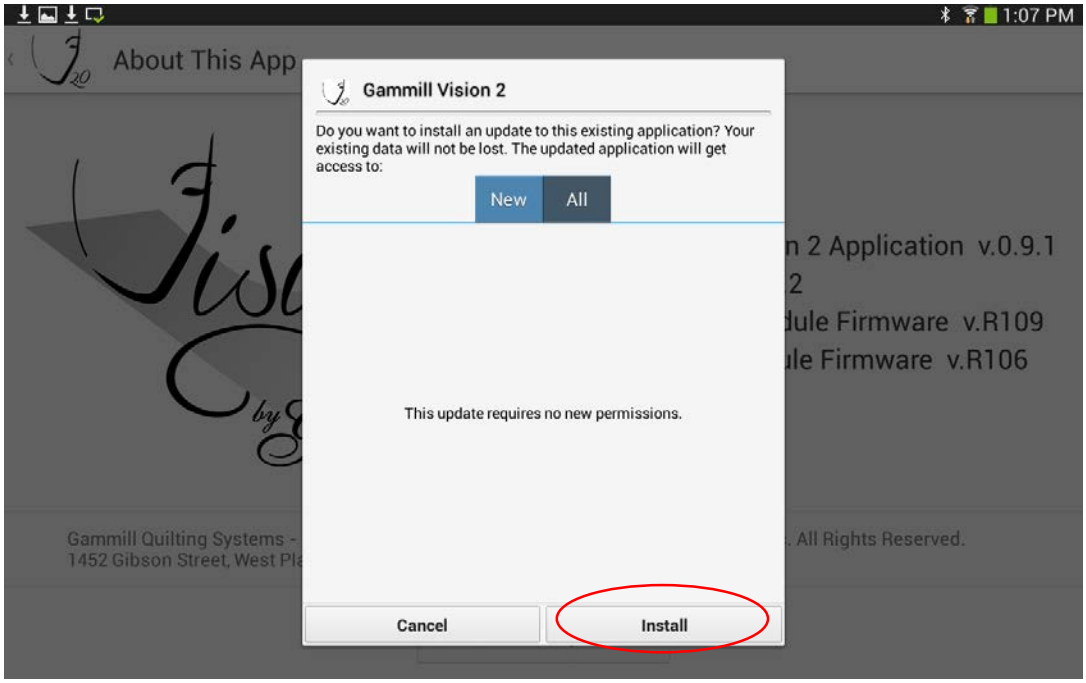
To update the Vision™ 2.0 Application:

- Touch the **YES** button.
- Notice the update begins downloading.
- Please wait while the app is downloading from the Gammill website.



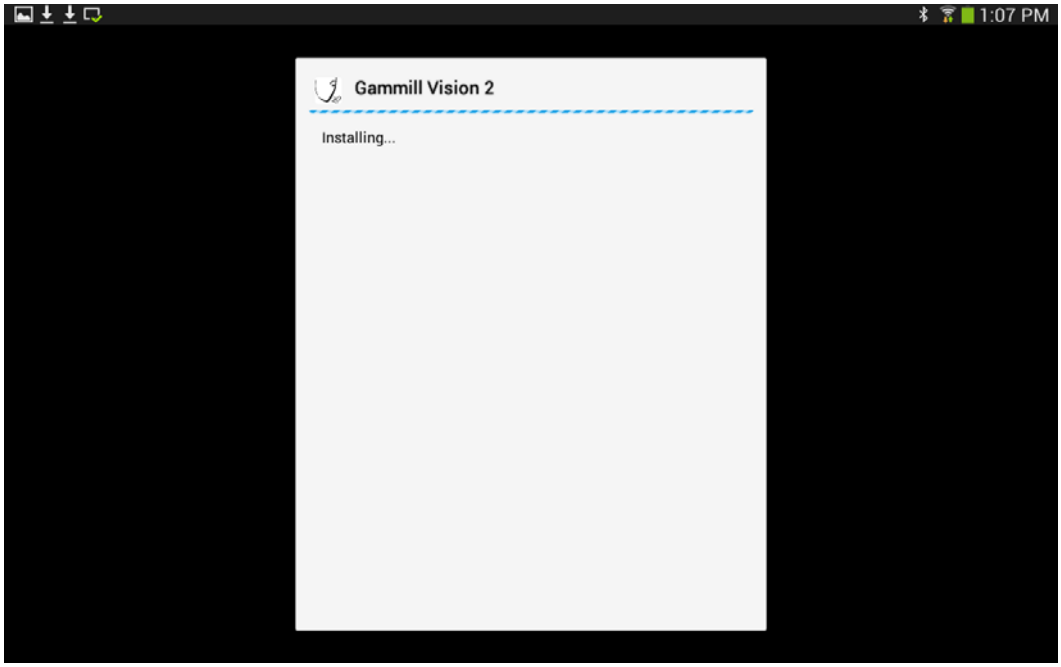
THE DOWNLOAD MAY BE CANCELLED AT ANYTIME BY PRESSING THE **CANCEL DOWNLOAD** BUTTON.

- Once downloaded, a window will appear for permission to install the update.


1:07 PM
About This App
Gammill Vision 2
Do you want to install an update to this existing application? Your existing data will not be lost. The updated application will get access to:
New
All
This update requires no new permissions.
Cancel
Install

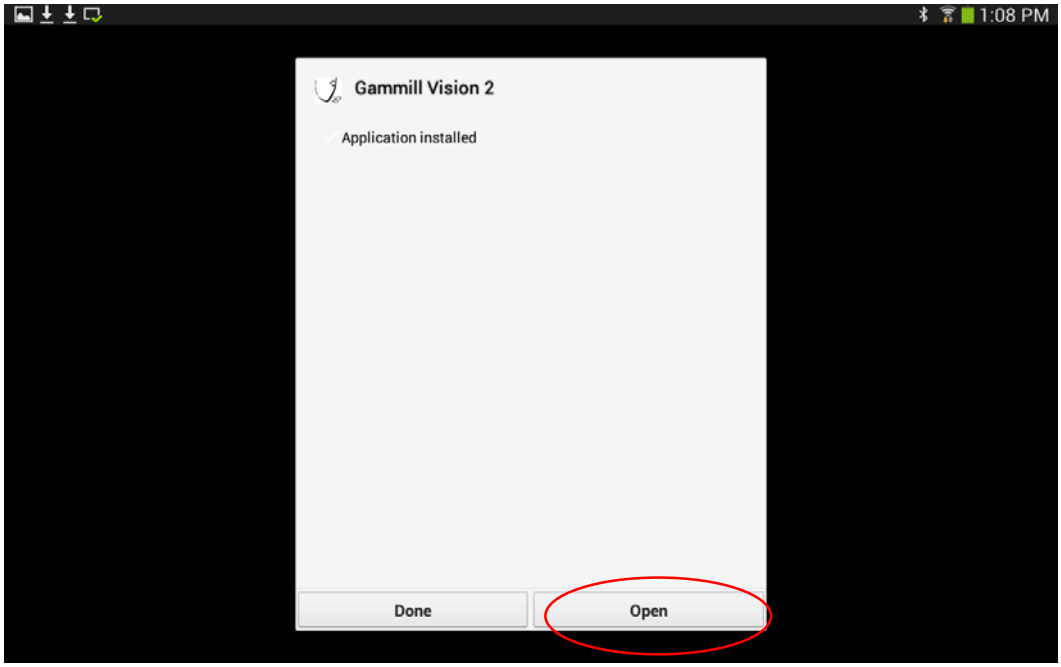
- Press **Install** to begin the update.

The app will be automatically updated and prompt you when complete.

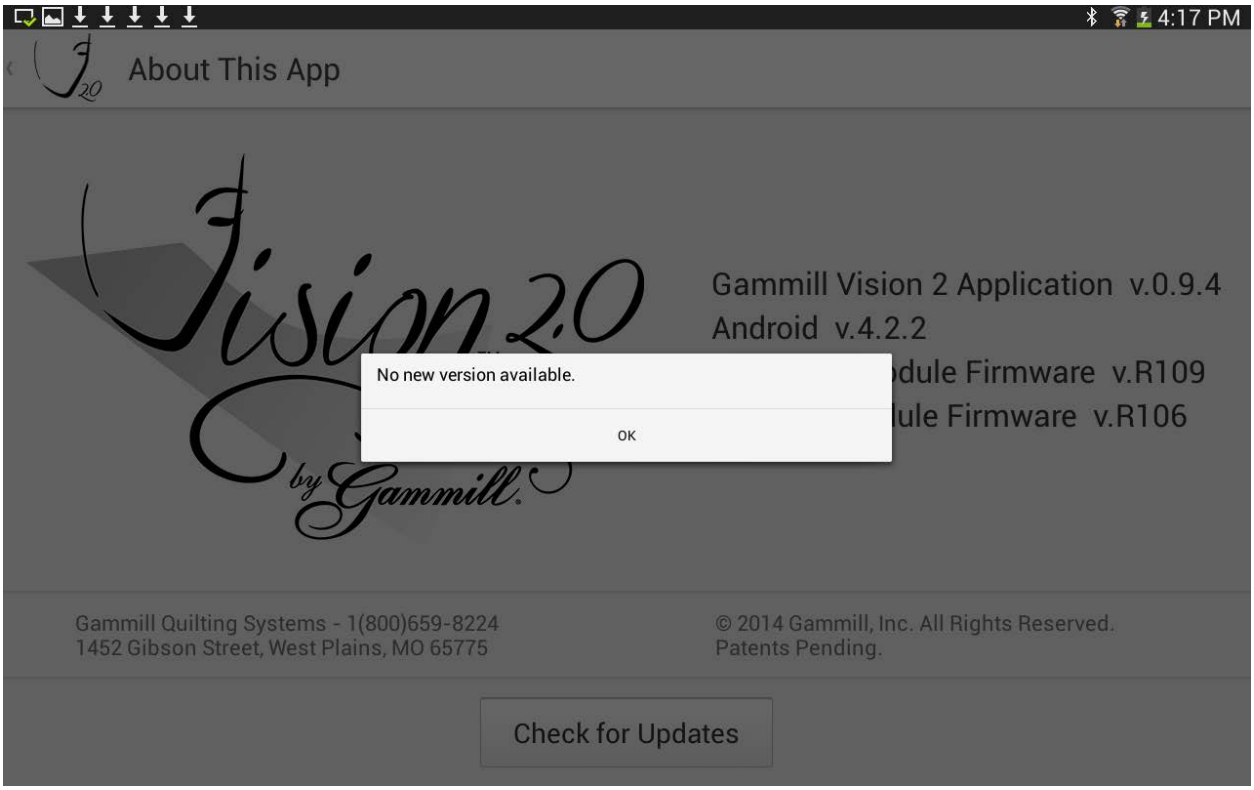


To open the updated app:

- Tap the **Open** button.



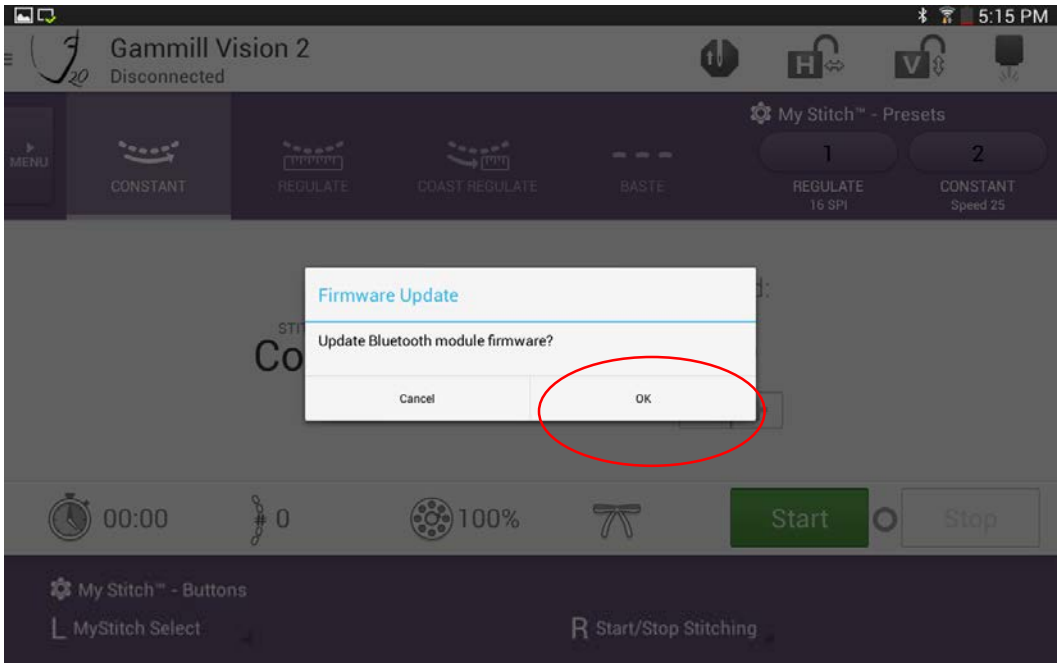
If no update is found, a message will pop up to let you know:



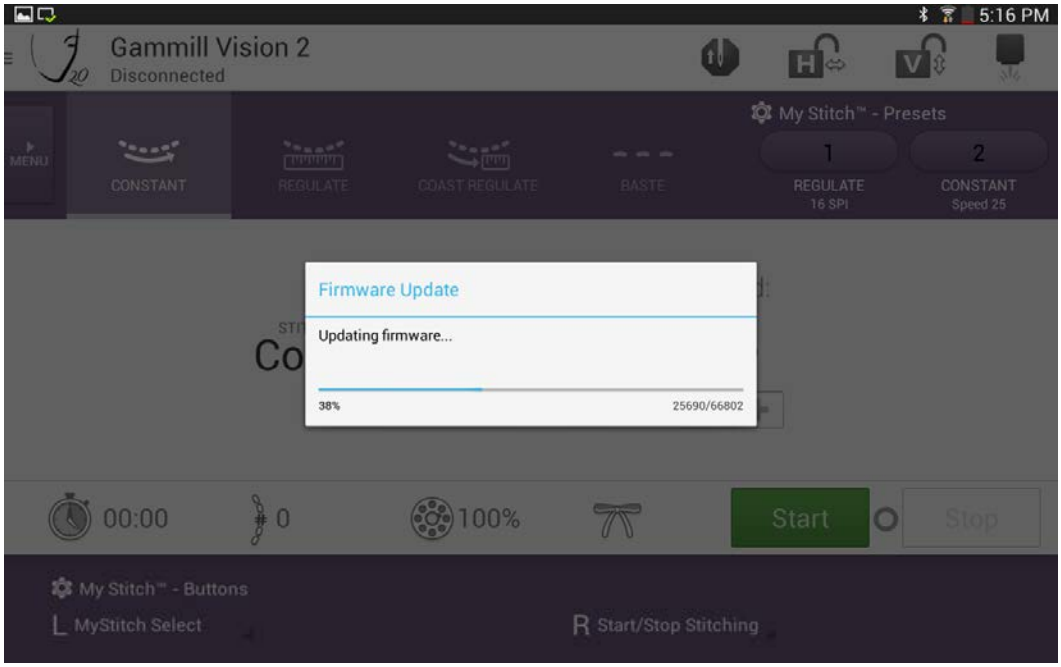
If a new machine firmware update is included within the new application, the application will prompt you with the steps to update the firmware.

To Update Firmware:

- Press **OK** to begin the update.



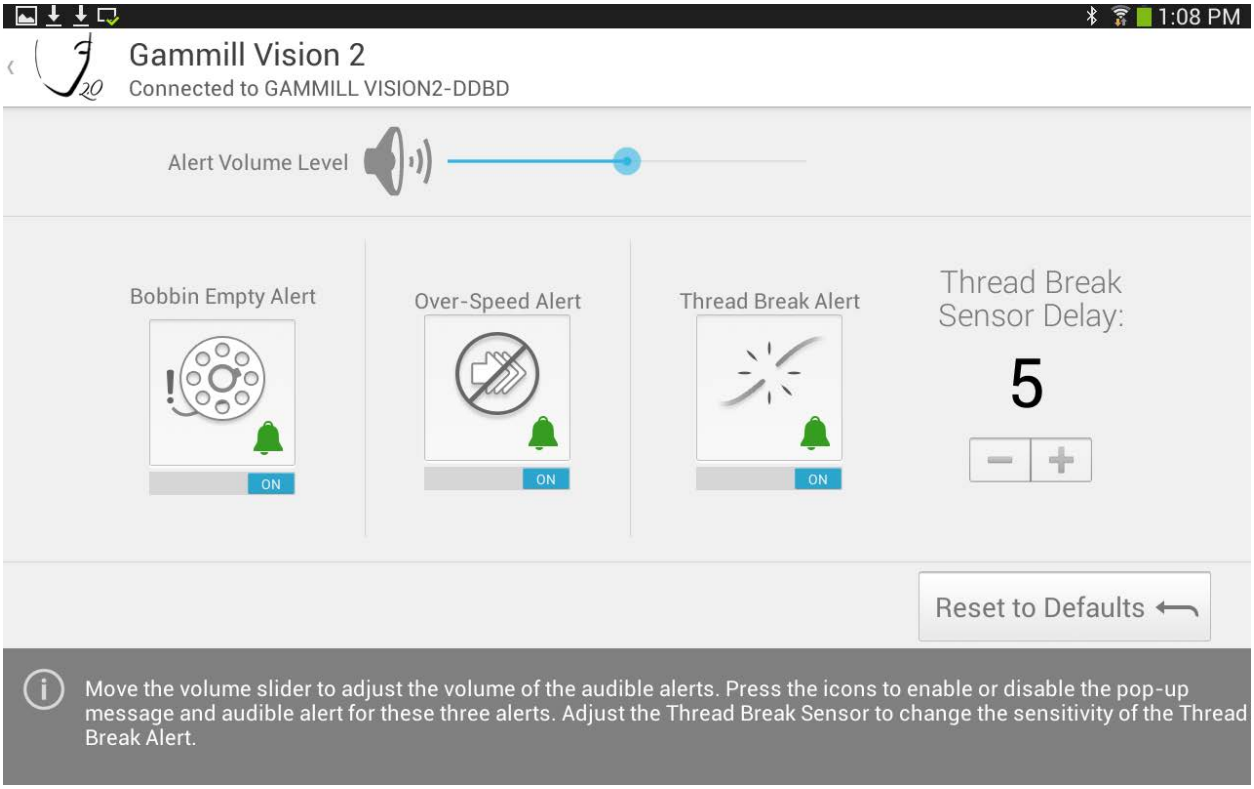
ONCE STARTED, DO NOT INTERRUPT THE UPDATE BY USING THE TABLET OR MACHINE.



ONCE THE UPDATE IS COMPLETE, THE BLUETOOTH CONTROL BOARD WILL AUTOMATICALLY RESET AND RECONNECT TO THE APPLICATION.

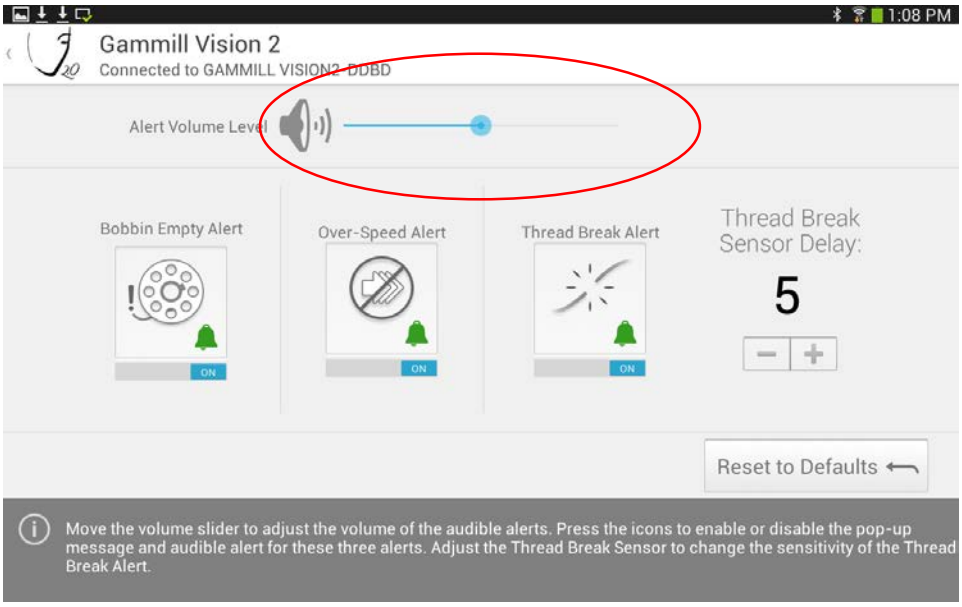
ALERTS

All alerts can be adjusted or disabled according to your needs.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Alert Volume Level
Bobbin Empty Alert
ON
Over-Speed Alert
ON
Thread Break Alert
ON
Thread Break Sensor Delay:
5
Reset to Defaults
Move the volume slider to adjust the volume of the audible alerts. Press the icons to enable or disable the pop-up message and audible alert for these three alerts. Adjust the Thread Break Sensor to change the sensitivity of the Thread Break Alert.

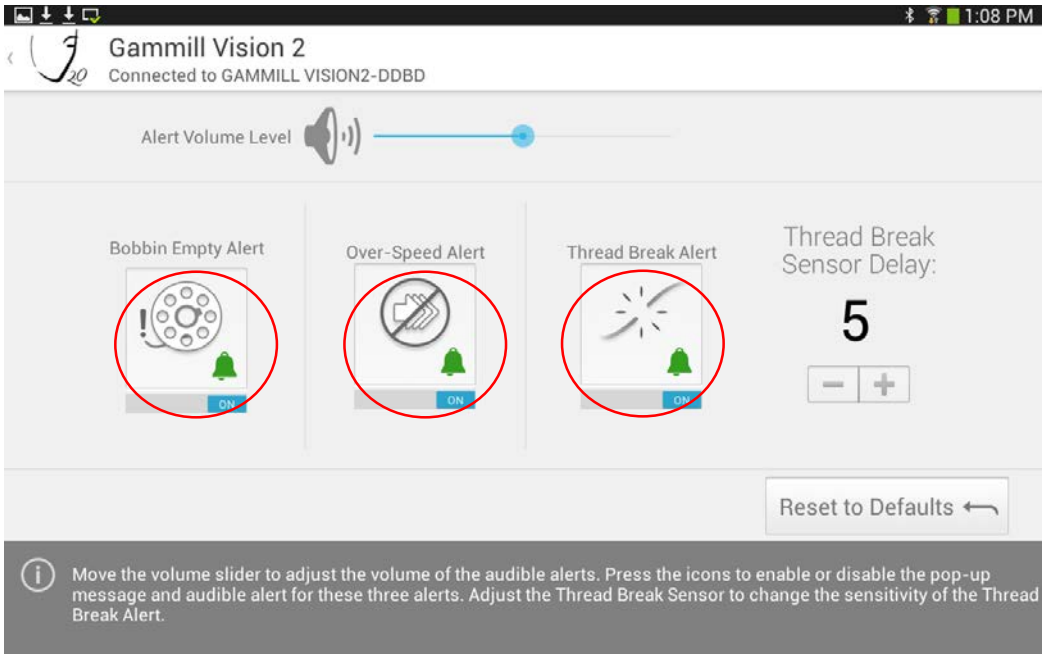
To adjust the volume of alert sounds:

- Drag the bubble on the slider.
- Dragging the slider to the left will lower the volume.
- Dragging the slider to the right will increase the volume.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Alert Volume Level
Bobbin Empty Alert
ON
Over-Speed Alert
ON
Thread Break Alert
ON
Thread Break Sensor Delay:
5
Reset to Defaults
Move the volume slider to adjust the volume of the audible alerts. Press the icons to enable or disable the pop-up message and audible alert for these three alerts. Adjust the Thread Break Sensor to change the sensitivity of the Thread Break Alert.

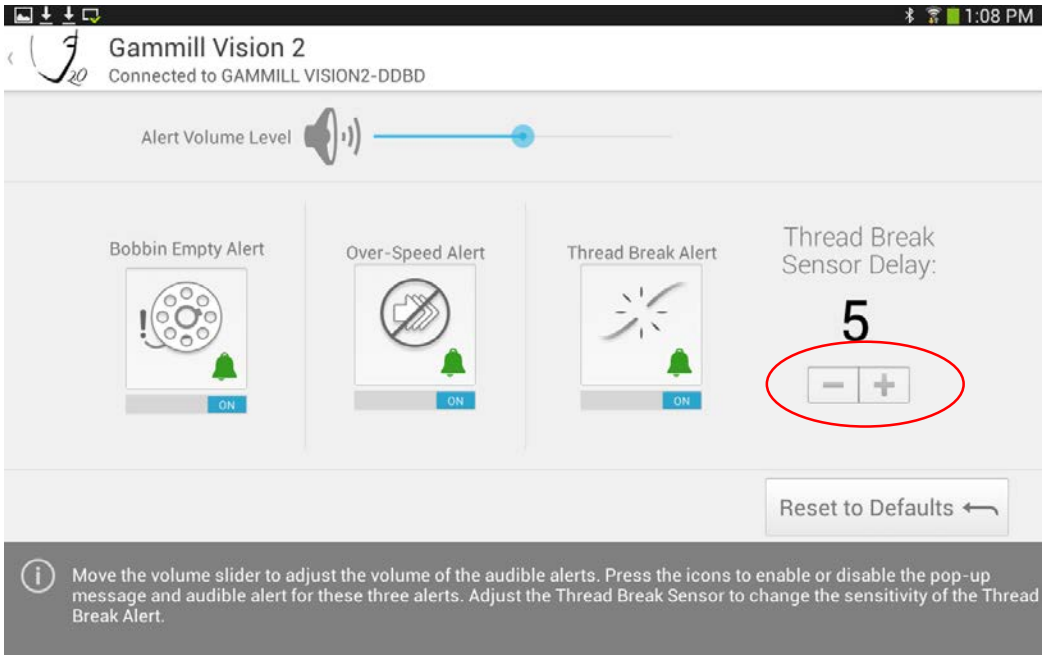
To disable an alert:

- Touch an alert icon.
- With each press, the alarm will toggle between on and off.
- Notice the indicator below the alarm icon indicates whether it is on or off.

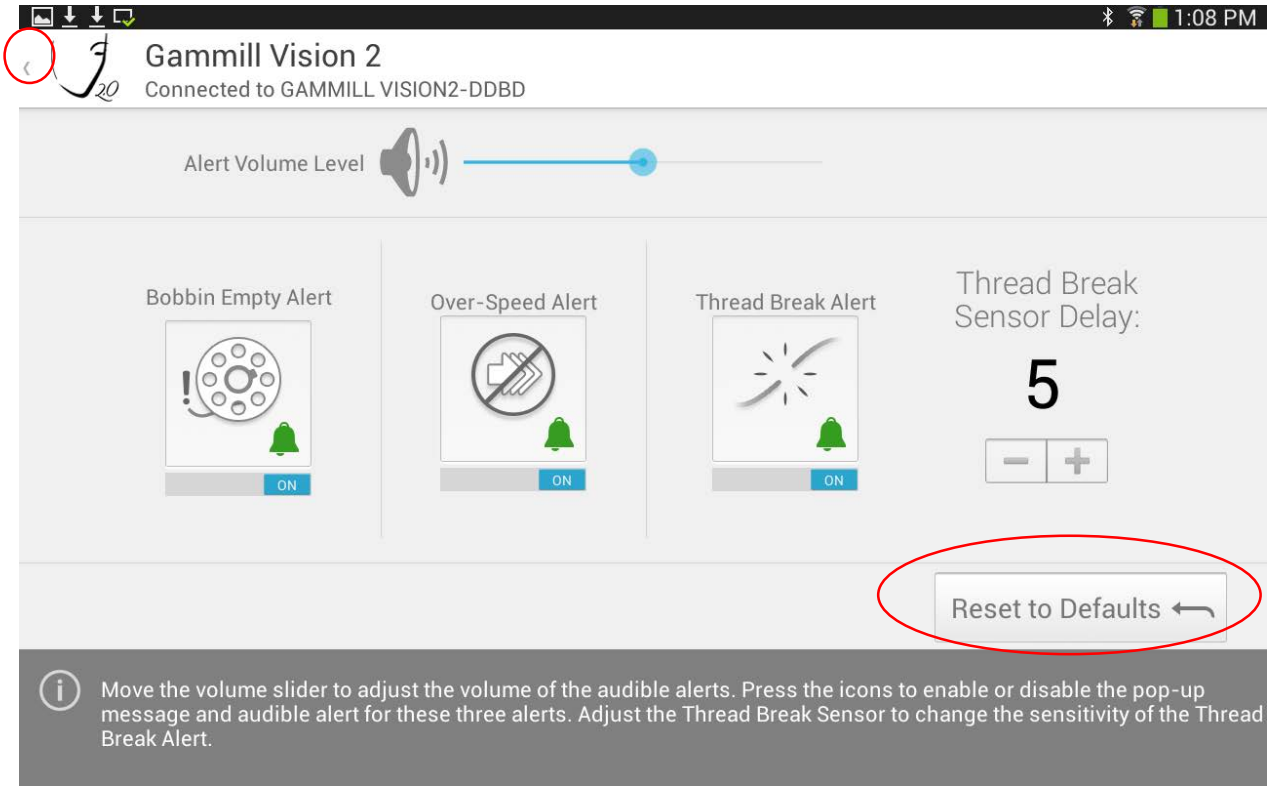

1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Alert Volume Level
Bobbin Empty Alert
Over-Speed Alert
Thread Break Alert
Thread Break Sensor Delay:
5
ON
Reset to Defaults
Move the volume slider to adjust the volume of the audible alerts. Press the icons to enable or disable the pop-up message and audible alert for these three alerts. Adjust the Thread Break Sensor to change the sensitivity of the Thread Break Alert.

To adjust the Thread Break Sensor Delay:

- Press the **–** (minus) button to decrease the delay making the sensor more sensitive.
- Press the **+** (plus) button to increase the delay making the sensor less sensitive.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Alert Volume Level
Bobbin Empty Alert
Over-Speed Alert
Thread Break Alert
Thread Break Sensor Delay:
5
ON
Reset to Defaults
Move the volume slider to adjust the volume of the audible alerts. Press the icons to enable or disable the pop-up message and audible alert for these three alerts. Adjust the Thread Break Sensor to change the sensitivity of the Thread Break Alert.

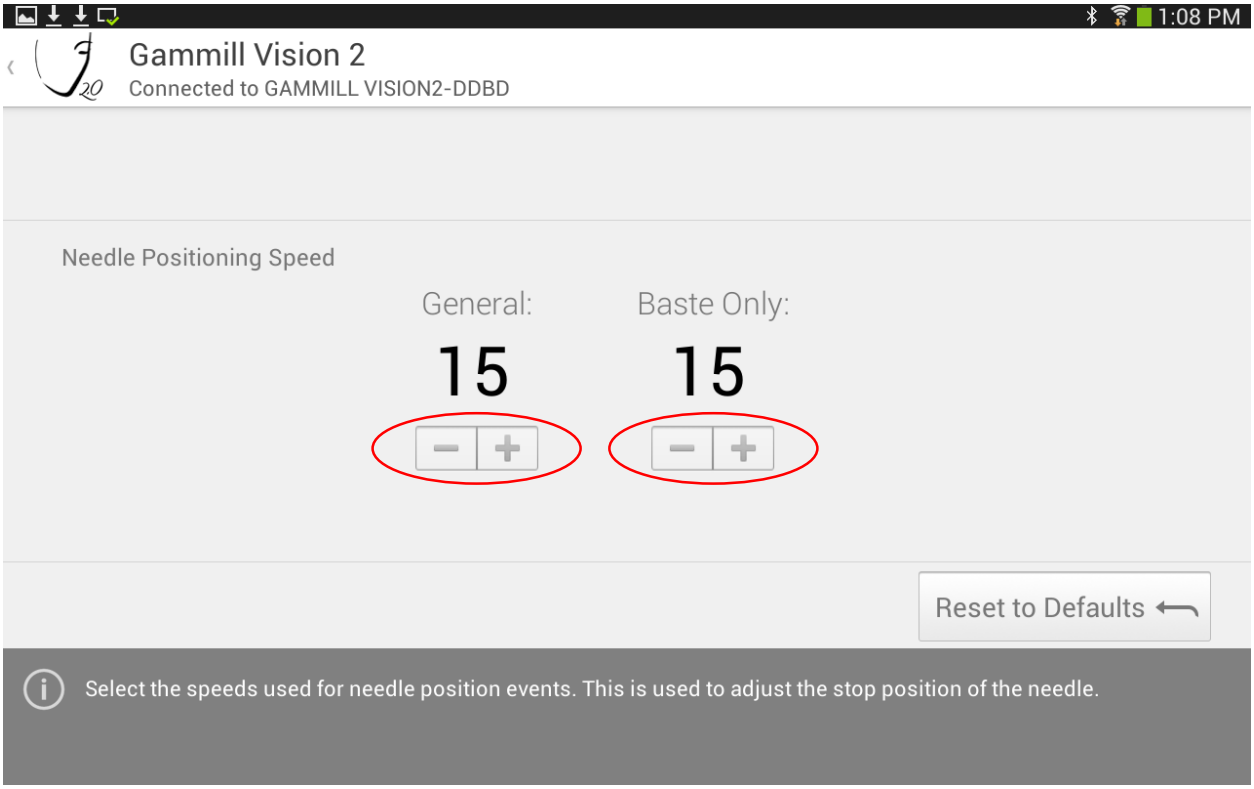
TO GENERATE A THREAD BREAK ALARM, THE SYSTEM LOOKS AT THE NUMBER OF STITCHES VERSUS THE MOVEMENT OF THE THREAD BREAK SENSOR. IF YOU HAVE FALSE ALERTS WHEN MAKING LOTS OF SMALL, FAST STITCHES OR WHEN USING VERY FINE THREAD, INCREASING THIS VALUE SHOULD HELP ALLEVIATE THESE FALSE ALERTS.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Alert Volume Level
Bobbin Empty Alert
ON
Over-Speed Alert
ON
Thread Break Alert
ON
Thread Break Sensor Delay:
5
Reset to Defaults
Move the volume slider to adjust the volume of the audible alerts. Press the icons to enable or disable the pop-up message and audible alert for these three alerts. Adjust the Thread Break Sensor to change the sensitivity of the Thread Break Alert.

PRESS THE **RESET TO DEFAULTS** BUTTON TO RESET ALL SETTINGS ON THIS SCREEN TO THE FACTORY DEFAULTS. TO EXIT THE SCREEN WHEN YOU ARE FINISHED MAKING CHANGES, PRESS THE LEFT ARROW AT THE TOP LEFT OF THE SCREEN.

NEEDLE SETTINGS

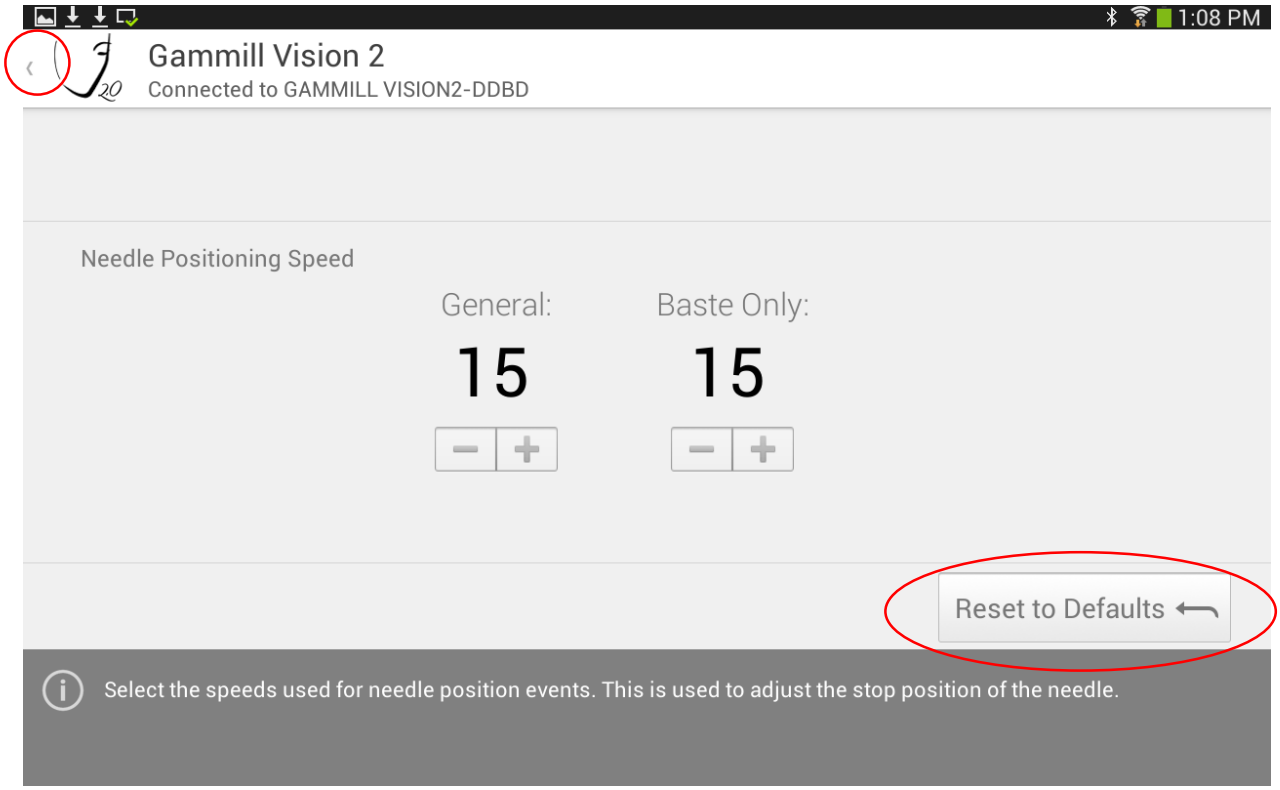
Customize various aspects of the needle movement and functions by accessing the Needle Settings screen.



Adjust Needle Position Speed:

- Press the **+** (plus) button to increase the needle to position faster.
- Press the **–** (minus) button to adjust the needle to position slower.
- Note: the General setting controls all stitching modes except basting.
- Note: the Baste setting controls only the basting mode.

THIS IS AN ADVANCED SETTING, AND THE VALUE IS NORMALLY REDUCED TO ACCOUNT FOR WEAR WITHIN A MACHINE AS THE MACHINE AGES. IT IS NOT RECOMMENDED THAT YOU CHANGE THIS SETTING, UNLESS DIRECTED BY A GAMMILL TECHNICIAN.



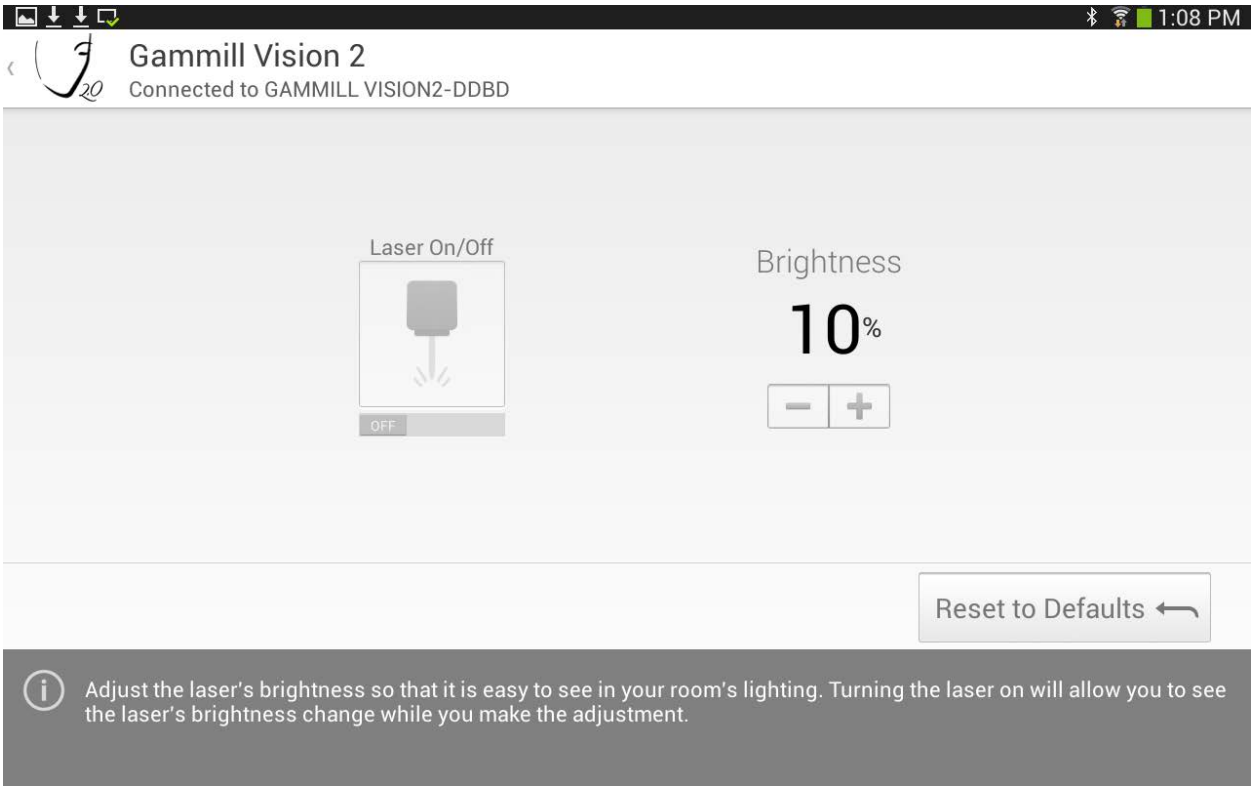
To Reset Defaults:

- Press the Reset to Defaults button to reset all settings on this screen to the factory defaults.

TO EXIT THE SCREEN WHEN YOU ARE FINISHED MAKING CHANGES, PRESS THE LEFT ARROW AT THE TOP LEFT OF THE SCREEN.

LASER SETTINGS

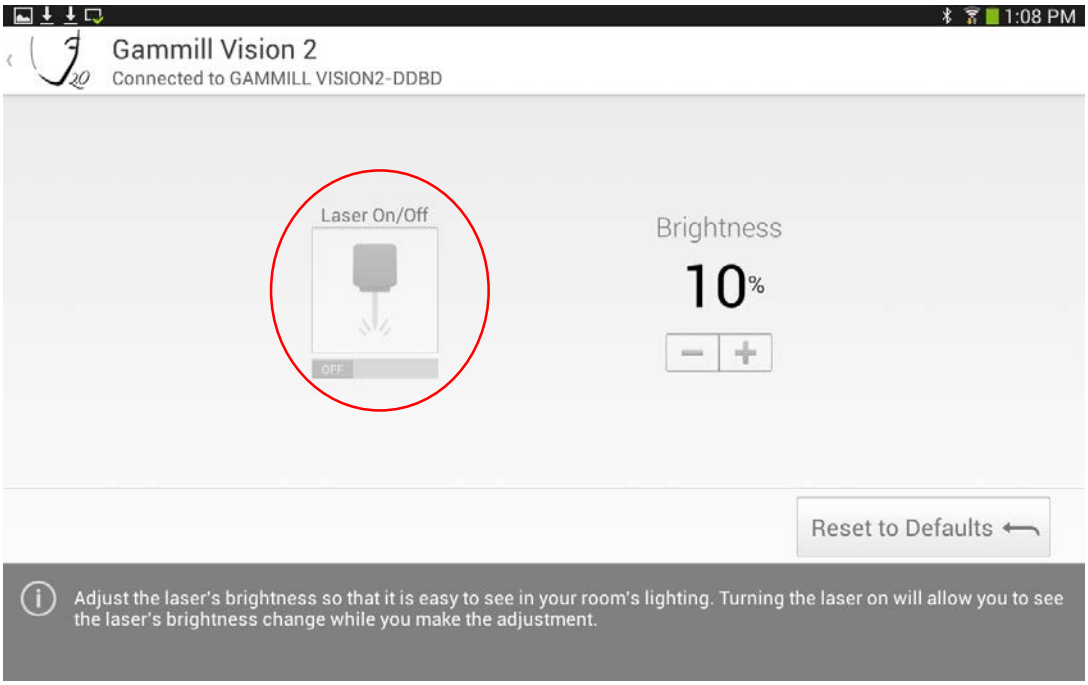
Adjust the intensity of the laser to compensate for your room's brightness as well as to change the size of the laser dot.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Laser On/Off
OFF
Brightness
10%
Reset to Defaults
Adjust the laser's brightness so that it is easy to see in your room's lighting. Turning the laser on will allow you to see the laser's brightness change while you make the adjustment.

	⚠ CAUTION
	Laser Radiation. Avoid direct exposure to beam.

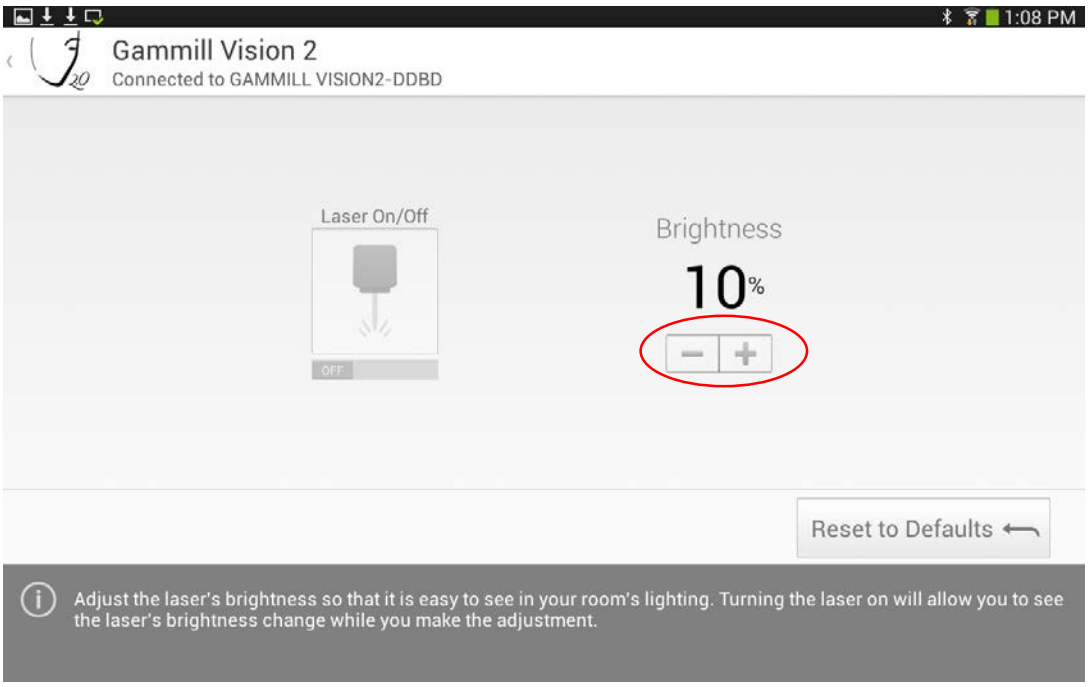
To turn the laser on or off:

- Press the **Laser On/Off** button to turn the laser on.
- Notice the indicator below the laser icon indicates whether it is on or off.
- Press the **Laser On/Off** button to turn the laser off.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Laser On/Off
OFF
Brightness
10%
Reset to Defaults
Adjust the laser's brightness so that it is easy to see in your room's lighting. Turning the laser on will allow you to see the laser's brightness change while you make the adjustment.

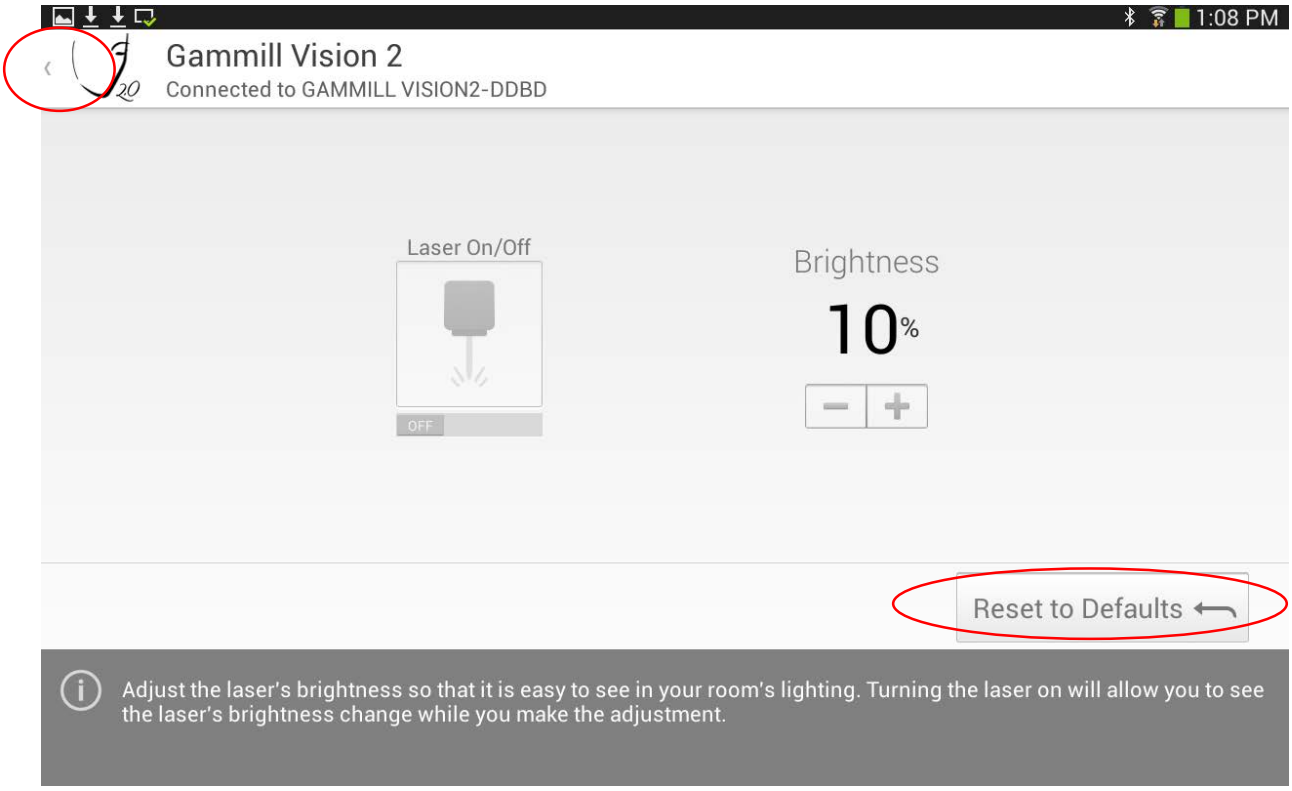
To adjust the laser brightness:

- Press the **+** (plus) to increase brightness and increase the size of the laser point.
- Press the **–** (minus) to decrease brightness and decrease the size of the laser point.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Laser On/Off
OFF
Brightness
10%
Reset to Defaults
Adjust the laser's brightness so that it is easy to see in your room's lighting. Turning the laser on will allow you to see the laser's brightness change while you make the adjustment.

To reset defaults:

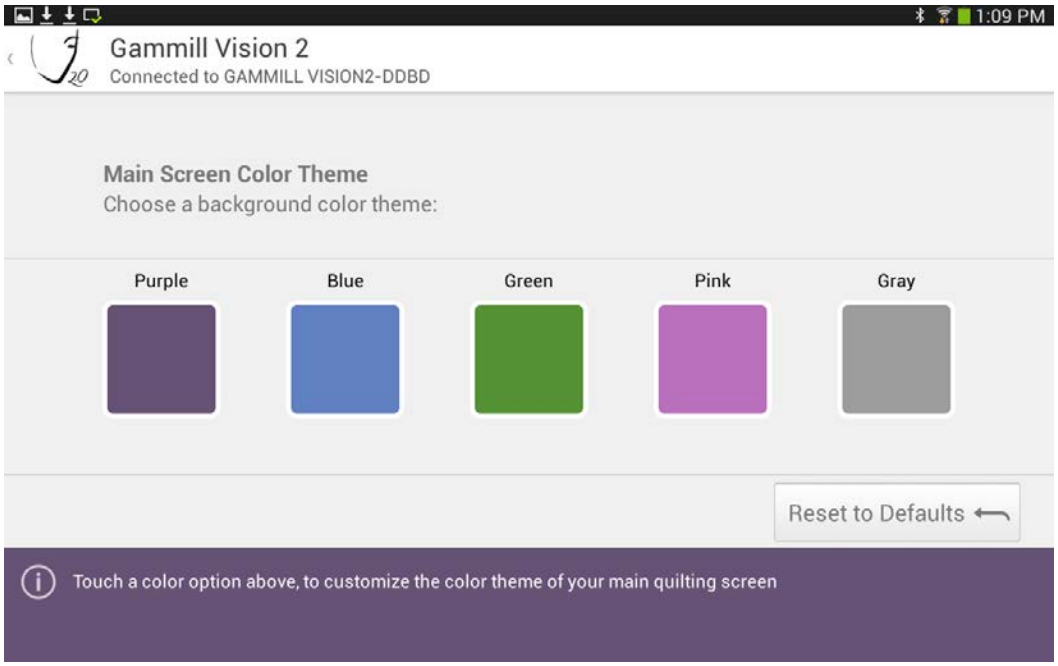
- Touch the **Reset to Defaults** button to reset all settings on this screen to the factory defaults.


1:08 PM
Gammill Vision 2
Connected to GAMMILL VISION2-DDBD
Laser On/Off
OFF
Brightness
10%
Reset to Defaults
Adjust the laser's brightness so that it is easy to see in your room's lighting. Turning the laser on will allow you to see the laser's brightness change while you make the adjustment.

TO EXIT THE SCREEN WHEN YOU ARE FINISHED MAKING CHANGES, PRESS THE LEFT ARROW AT THE TOP LEFT OF THE SCREEN.

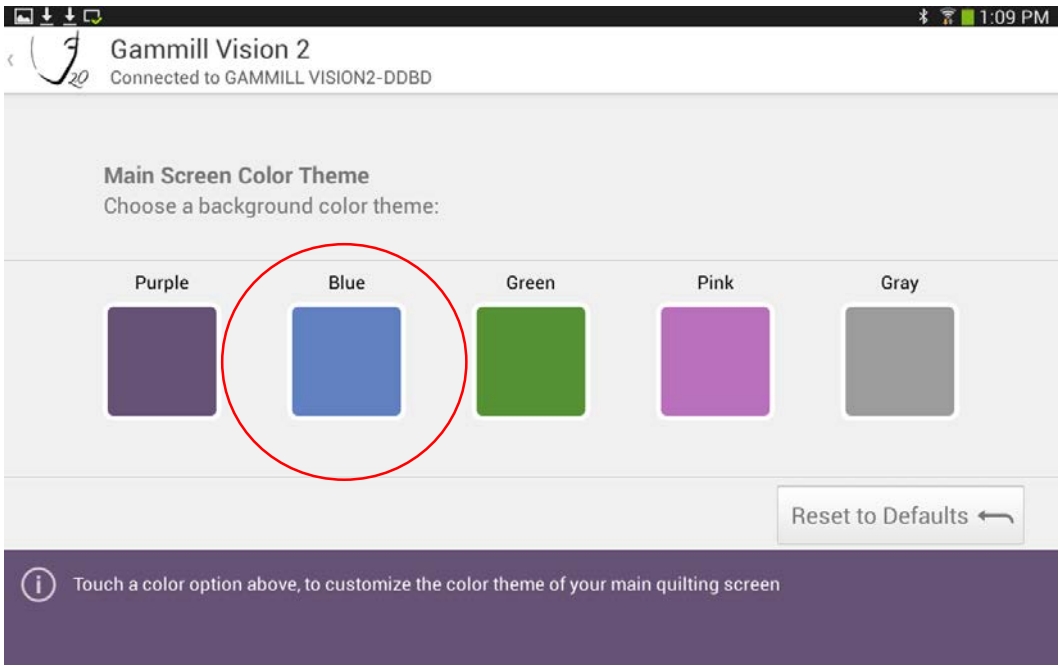
DISPLAY SETTINGS

Select the color used on the colored bars of the main screen in the Display Settings screen.

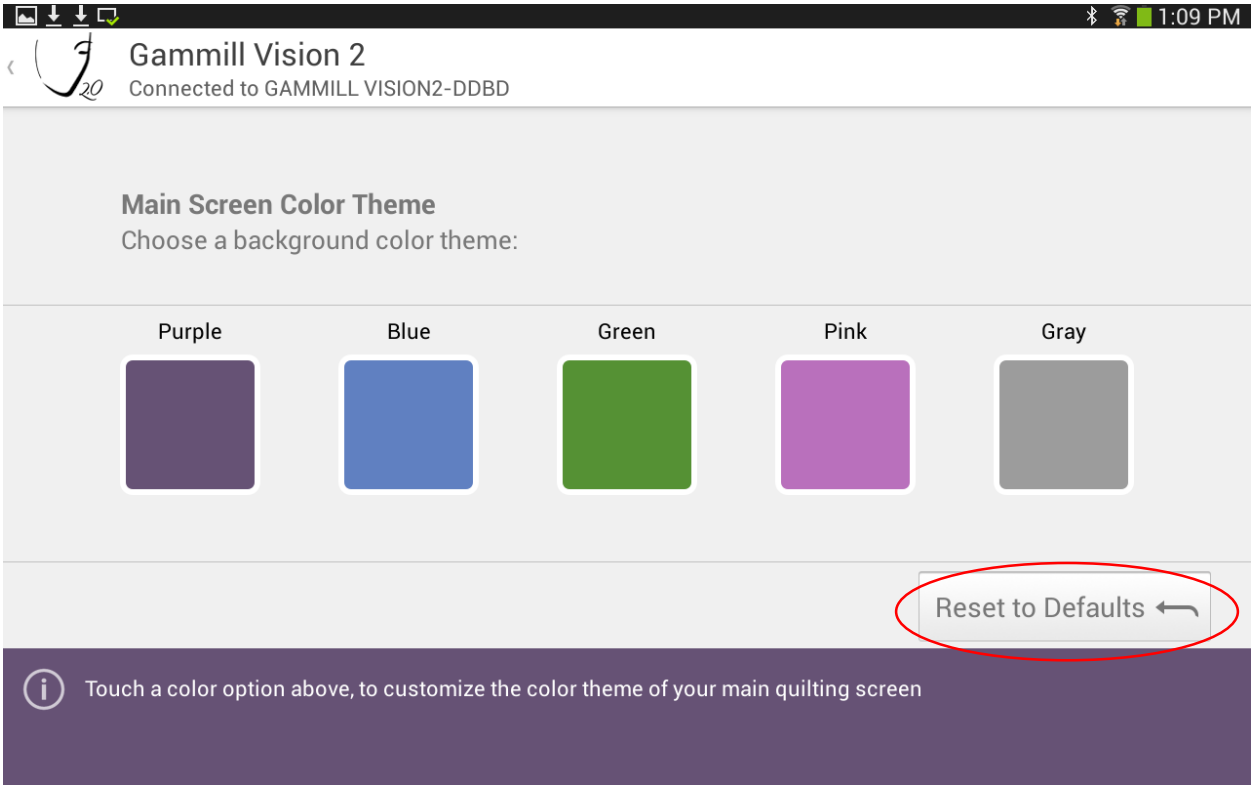


To select a color:

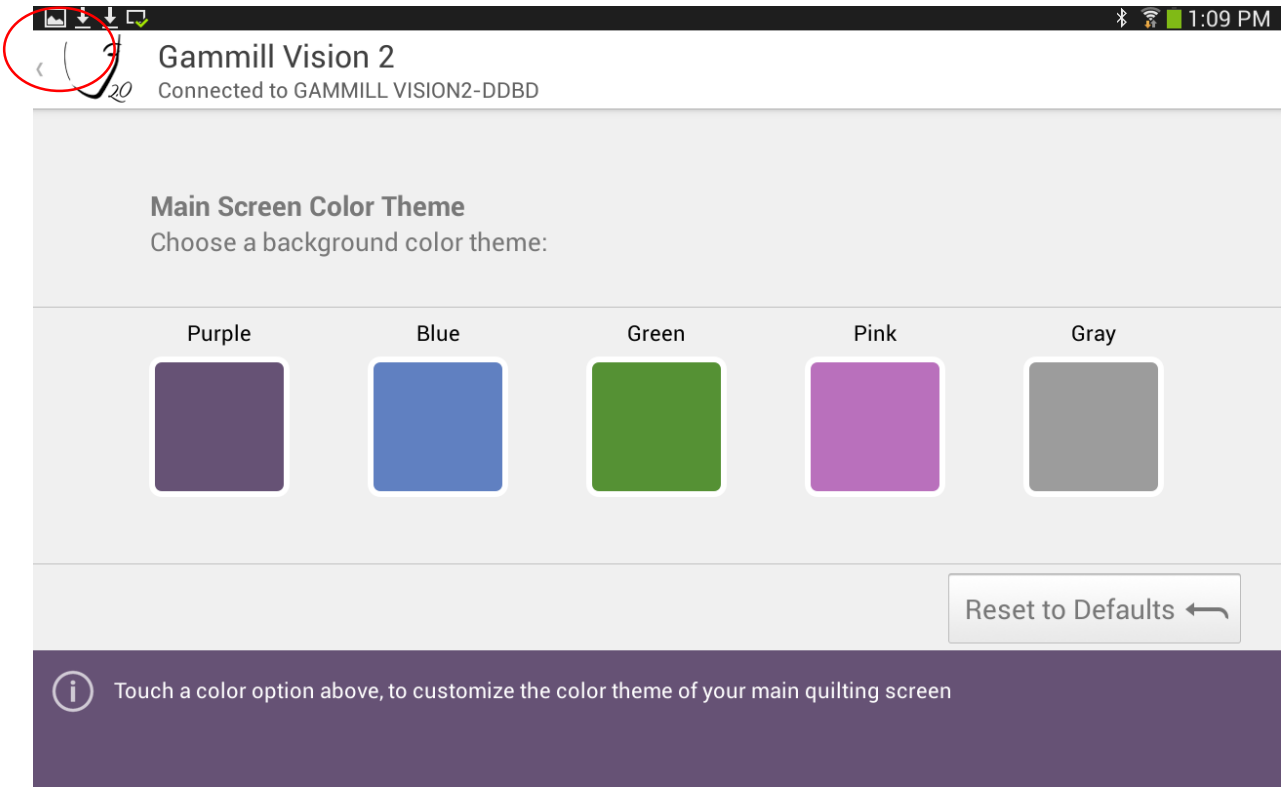
- Touch a colored box.



- Touch the **Reset to Defaults** button to reset the main screen color to purple.

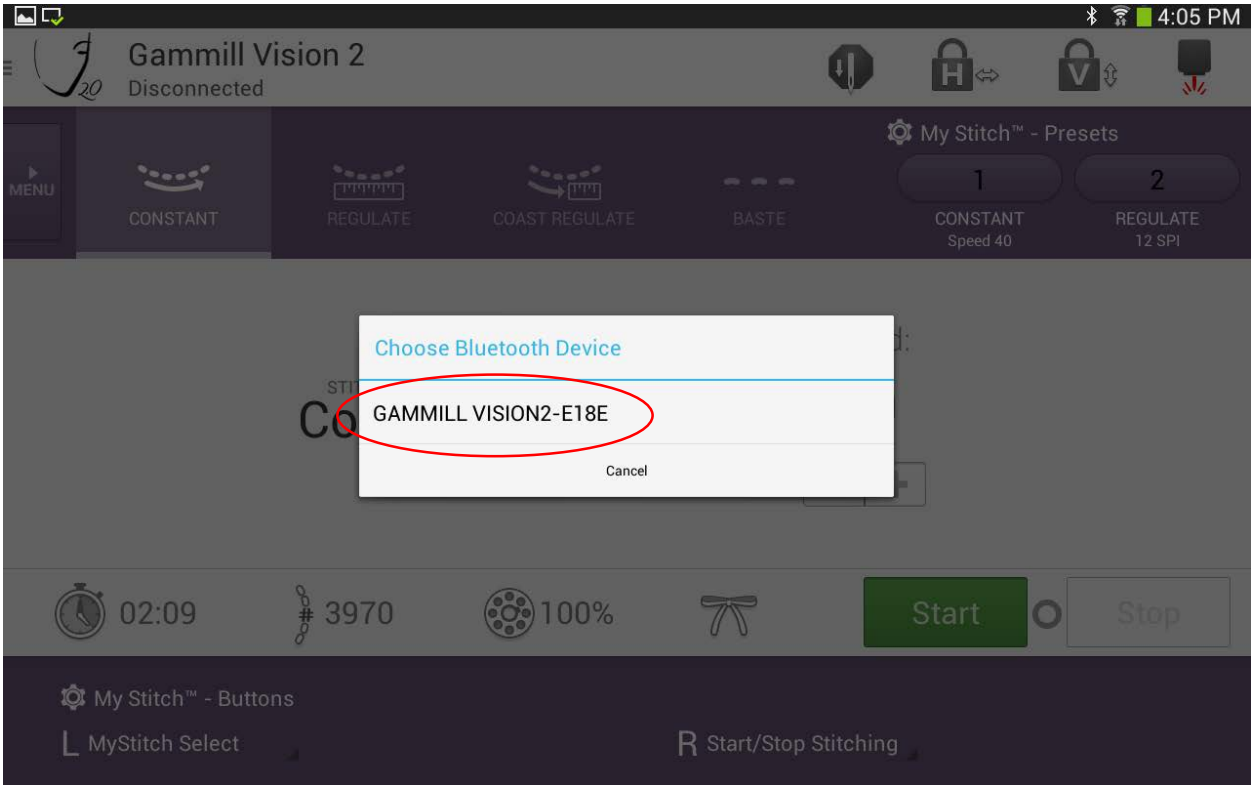


To exit the screen, press the left arrow at the top left of the screen.



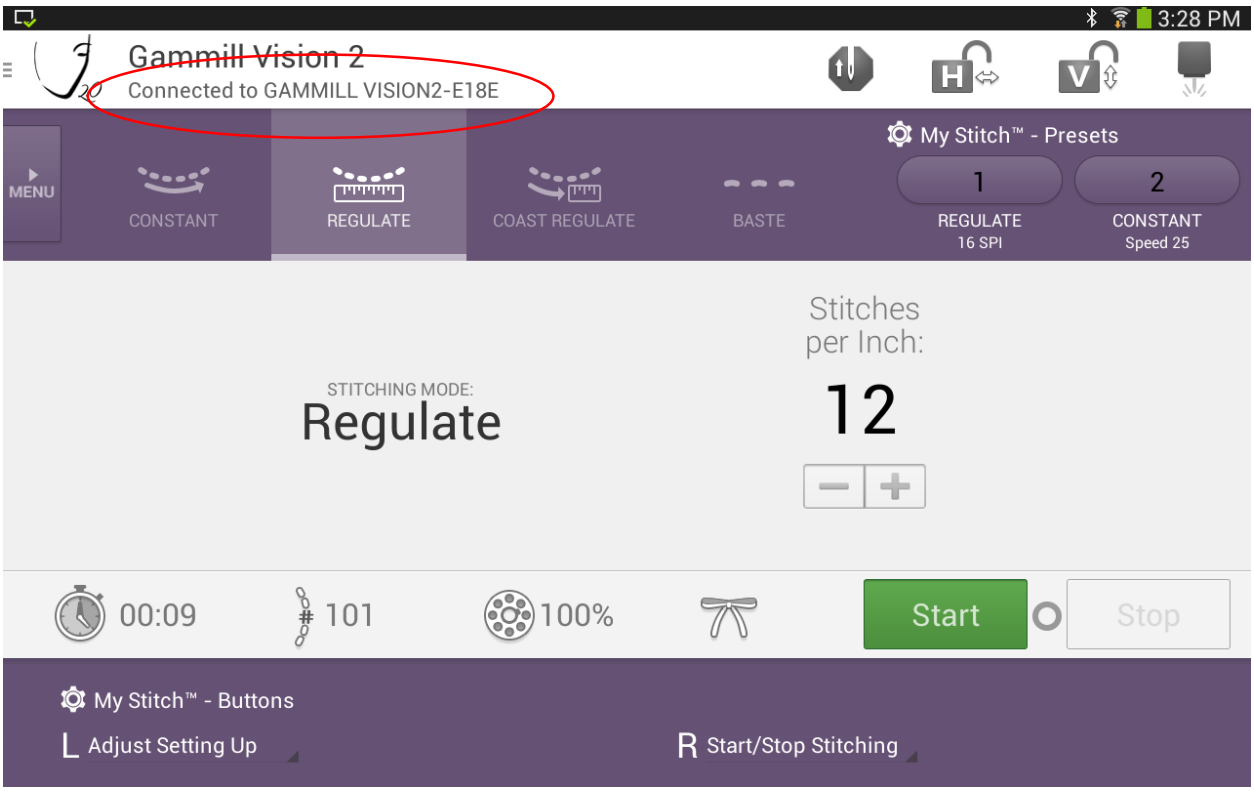
BLUETOOTH SETUP

The Bluetooth Setup allows the user to connect the tablet user interface to a machine. When chosen, a popup window will appear. This popup window will display all the available machines identified by the software.



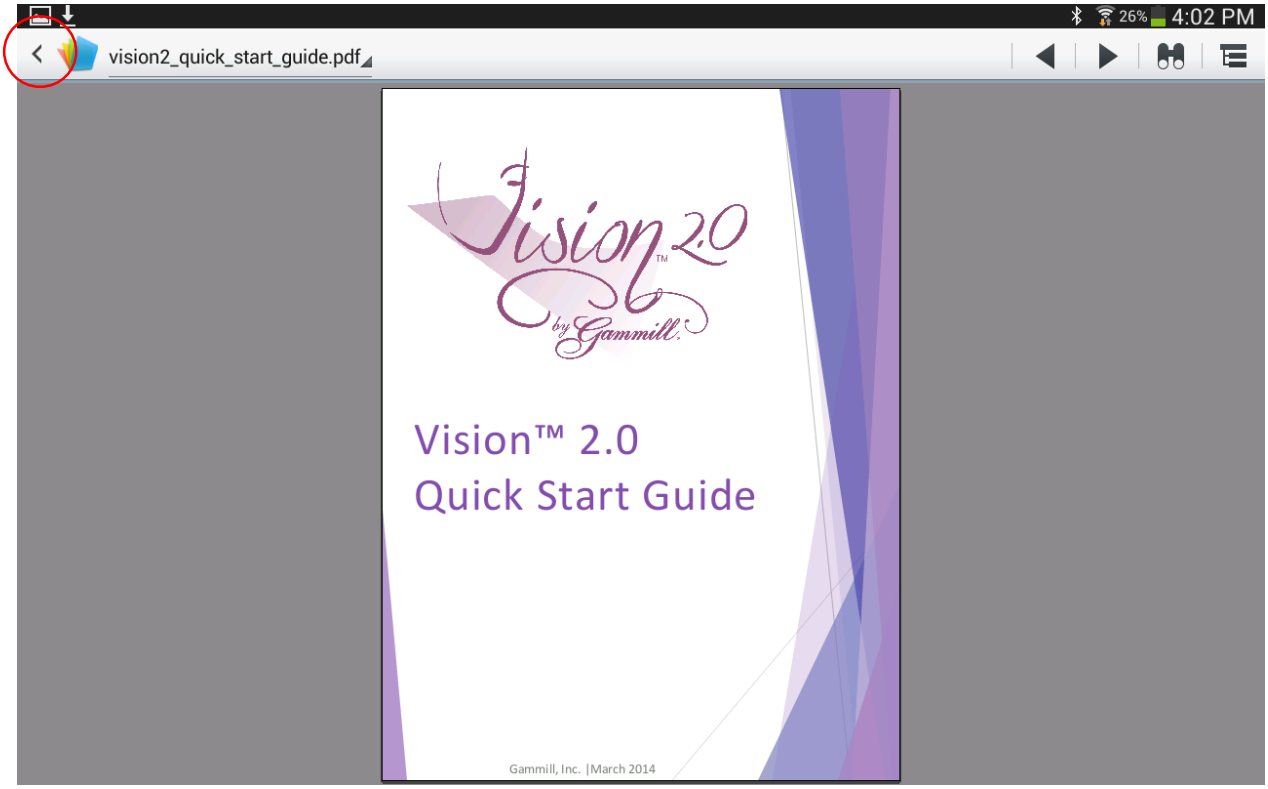
TOUCH THE LISTING FOR THE MACHINE YOU WANT TO CONNECT TO. IF YOU HAVE MULTIPLE MACHINES THAT YOU COULD CONNECT TO, CONSULT THE ADDRESS PRINTED ON THE MACHINE DECAL AT THE REAR OF THE HEAD TO DETERMINE WHICH ADDRESS YOU WANT TO CONNECT TO.

THE POPUP WINDOW WILL DISAPPEAR, AND THE USER INTERFACE WILL BE CONNECTED TO THE MACHINE. WHEN THIS IS COMPLETE, THE USER INTERFACE WILL SHOW THE CONNECTION IN THE UPPER LEFT CORNER OF THE SCREEN UNDER THE MACHINE NAME.


3:28 PM
Gammill Vision 2
Connected to GAMMILL VISION2-E18E
MENU
CONSTANT
REGULATE
COAST REGULATE
BASTE
My Stitch™ - Presets
1
REGULATE
16 SPI
2
CONSTANT
Speed 25
STITCHING MODE:
Regulate
Stitches
per Inch:
12
00:09
101
100%
Start
Stop
My Stitch™ - Buttons
L Adjust Setting Up
R Start/Stop Stitching

QUICK START GUIDE

Access the onboard Quick Start Guide for basic instructions in threading, oiling and interface navigation.

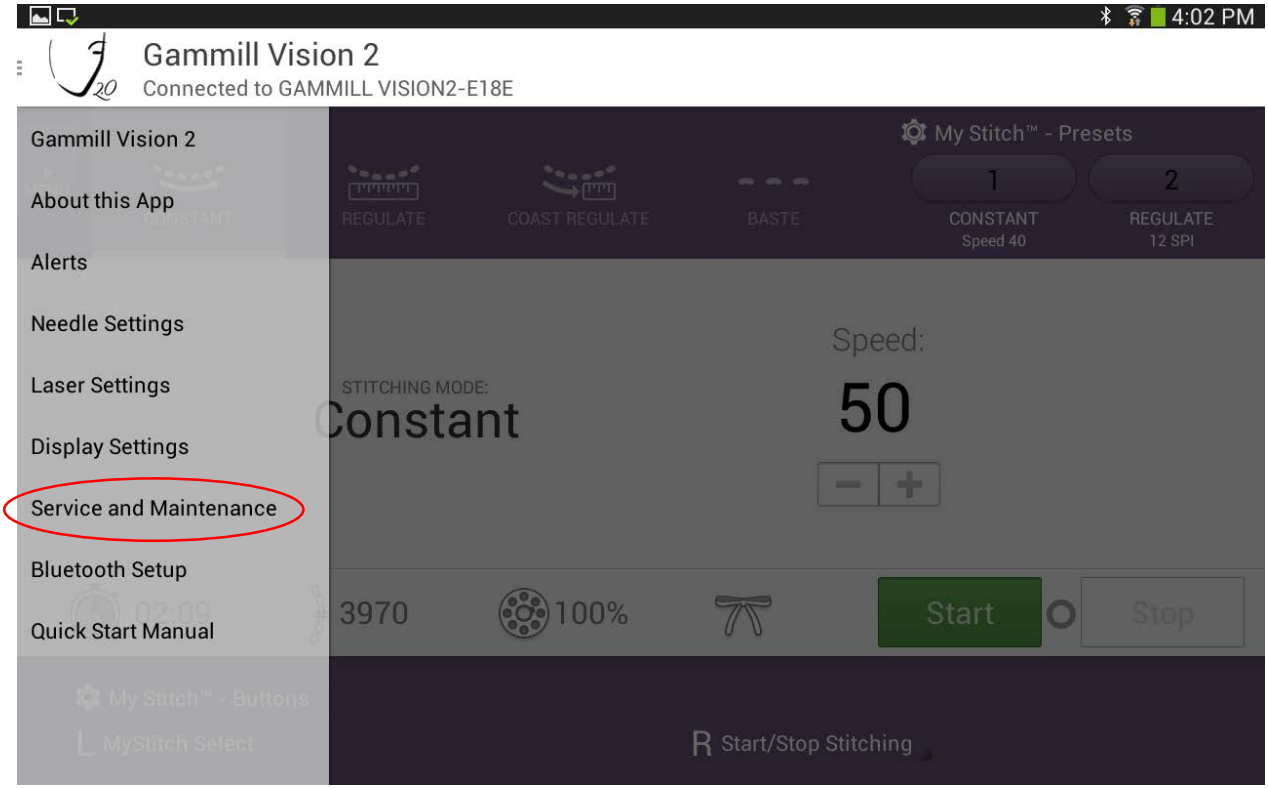


- The Quick Start Guide opens in a separate app.
- Swipe to scroll and pinch to zoom.
- Press the back arrow at the top left to return to the Vision™ 2.0 app.

SERVICE & MAINTENANCE SCREENS

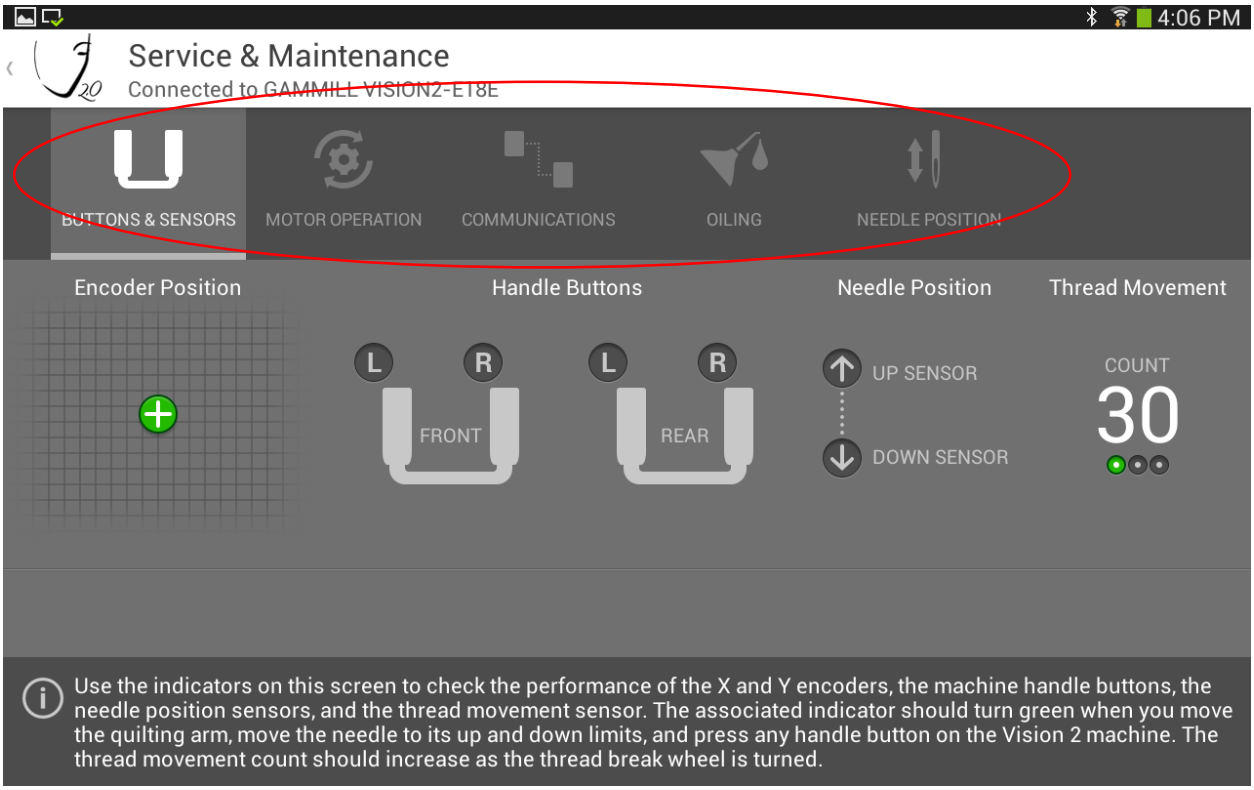
NAVIGATION

The Service & Maintenance Screens is accessed through the main menu.



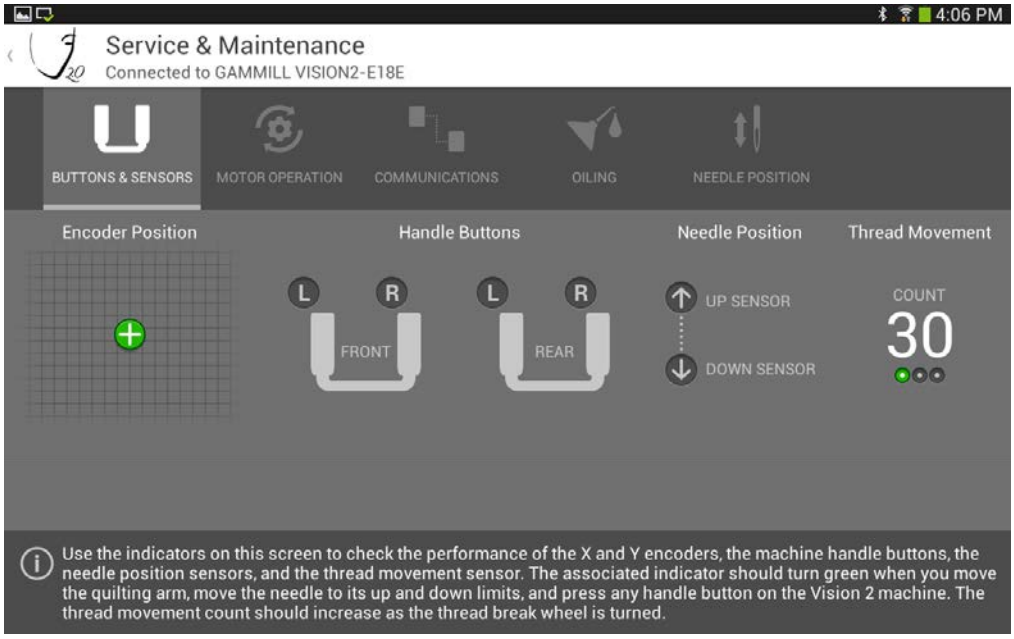
THESE SCREENS ARE USED WHEN DIAGNOSING POSSIBLE ISSUES WITH YOUR GAMMILL VISION 2 MACHINE. NORMALLY, THEY ARE TO BE USED UNDER THE DIRECTION OF A TECHNICIAN, BUT NO HARM CAN COME TO THE MACHINE AS LONG AS YOU FOLLOW THE DIRECTIONS.

WHEN THE SCREEN IS ACCESSED, THE BUTTONS AND SENSORS TAB IS SELECTED AS A DEFAULT. DIFFERENT FUNCTIONS MAY BE ACCESSED BY CLICKING ON THEIR CORRESPONDING TABS AT THE TOP OF THE SCREEN.


4:06 PM
Service & Maintenance
Connected to GAMMILL-VISION2-ET8E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
FRONT
L
R
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

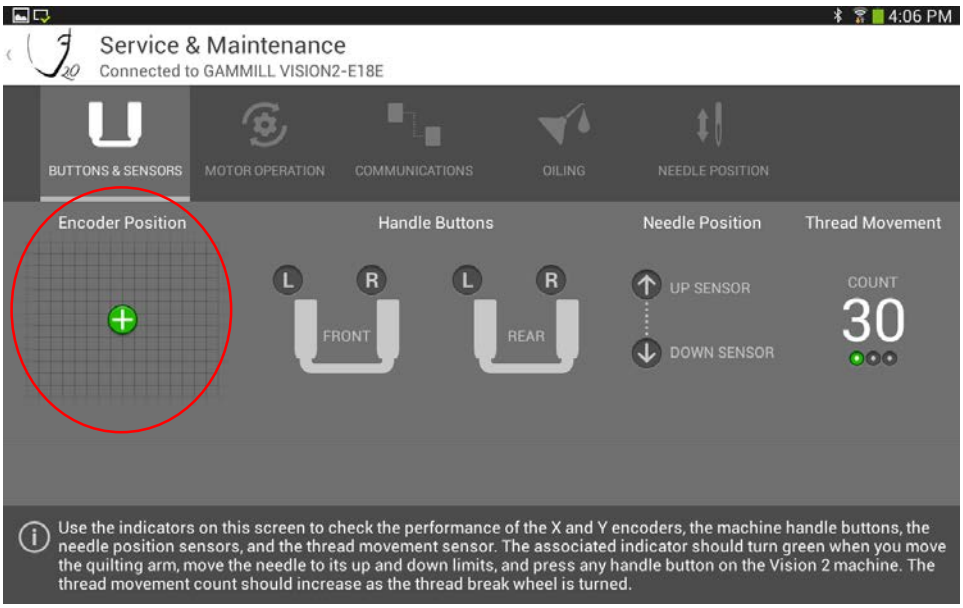
BUTTONS AND SENSORS

The Buttons and Sensors tab allows you to identify issues with the various sensors and buttons on the machine.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

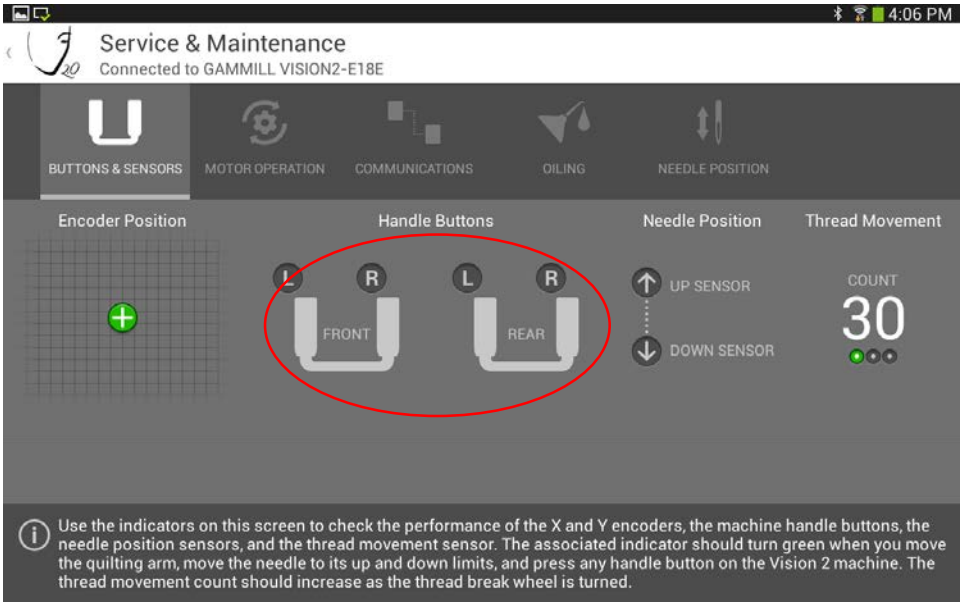
To check the Encoder Position:

- Move the machine to the left and right.
- Notice the green indicator on the encoder position moves left to right as you move the machine. This verifies that the X encoder is working properly.
- Move the machine to the front and rear.
- Notice the green indicator on the encoder position moves up and down as you move the machine. This verifies that the Y encoder is working properly.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

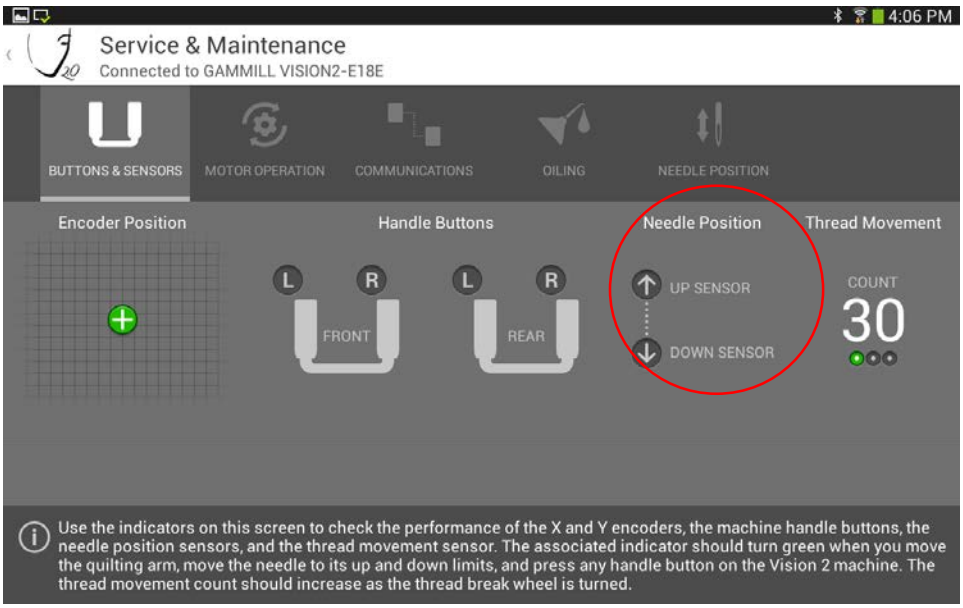
To check Handle Buttons:

- Press each handle button.
- Notice that as the button is pressed, the corresponding indicator turns green. This verifies that all buttons are functioning properly.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

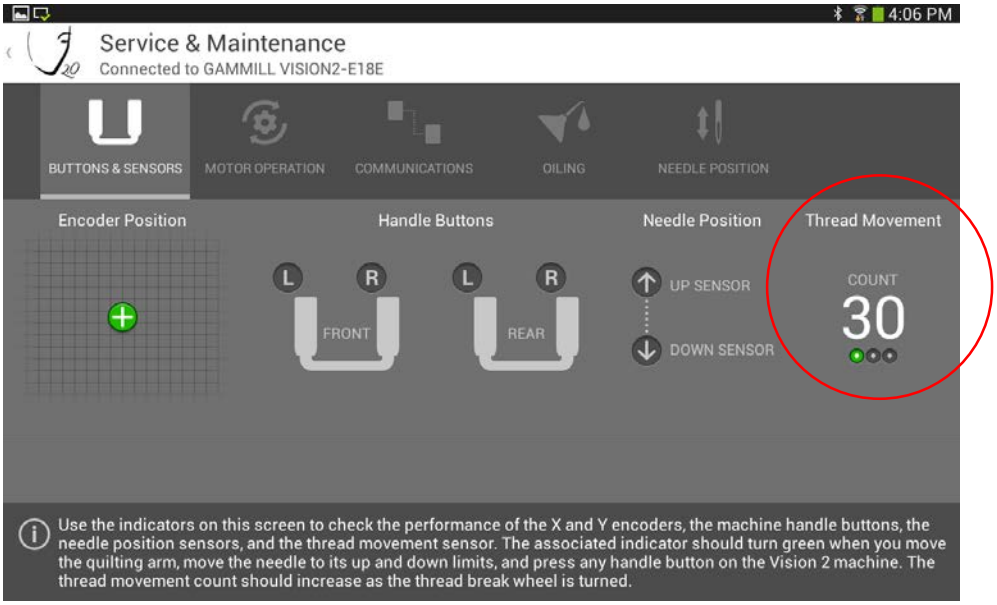
To check the Needle Position:

- Slowly turn the hand wheel by hand.
- Observe if the Up and Down needle position sensors turn green, and that they turn green at the correct needle positions.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

To check Thread Movement:

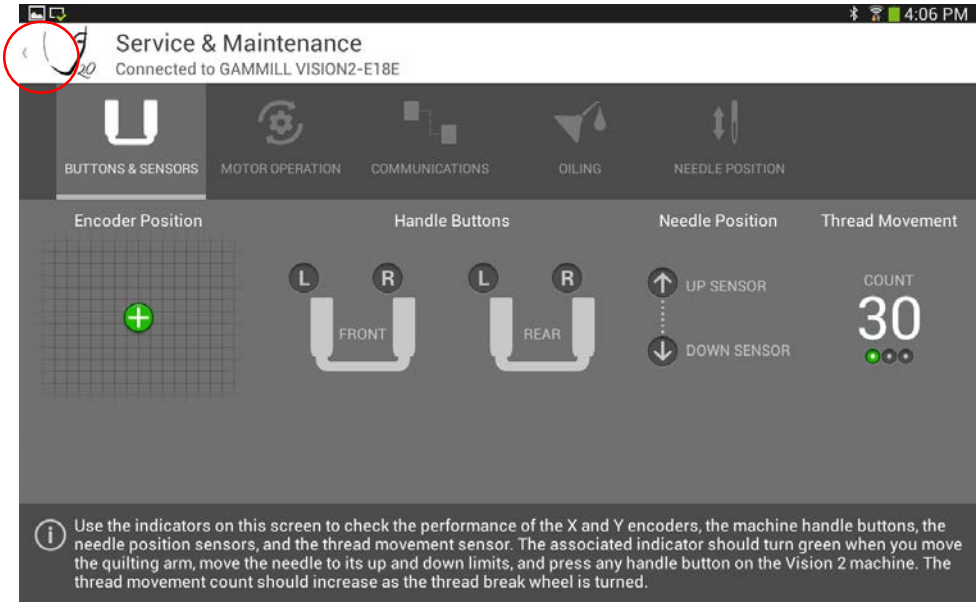
- Turn the thread break wheel.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

THE THREAD MOVEMENT COUNT WILL EITHER INCREASE OR DECREASE (DEPENDING ON DIRECTION ROTATED) BY 1 FOR EACH ROTATION OF THE WHEEL. THIS VERIFIES THAT THE THREAD BREAK ENCODER IS WORKING PROPERLY.

To exit Buttons and Sensors:

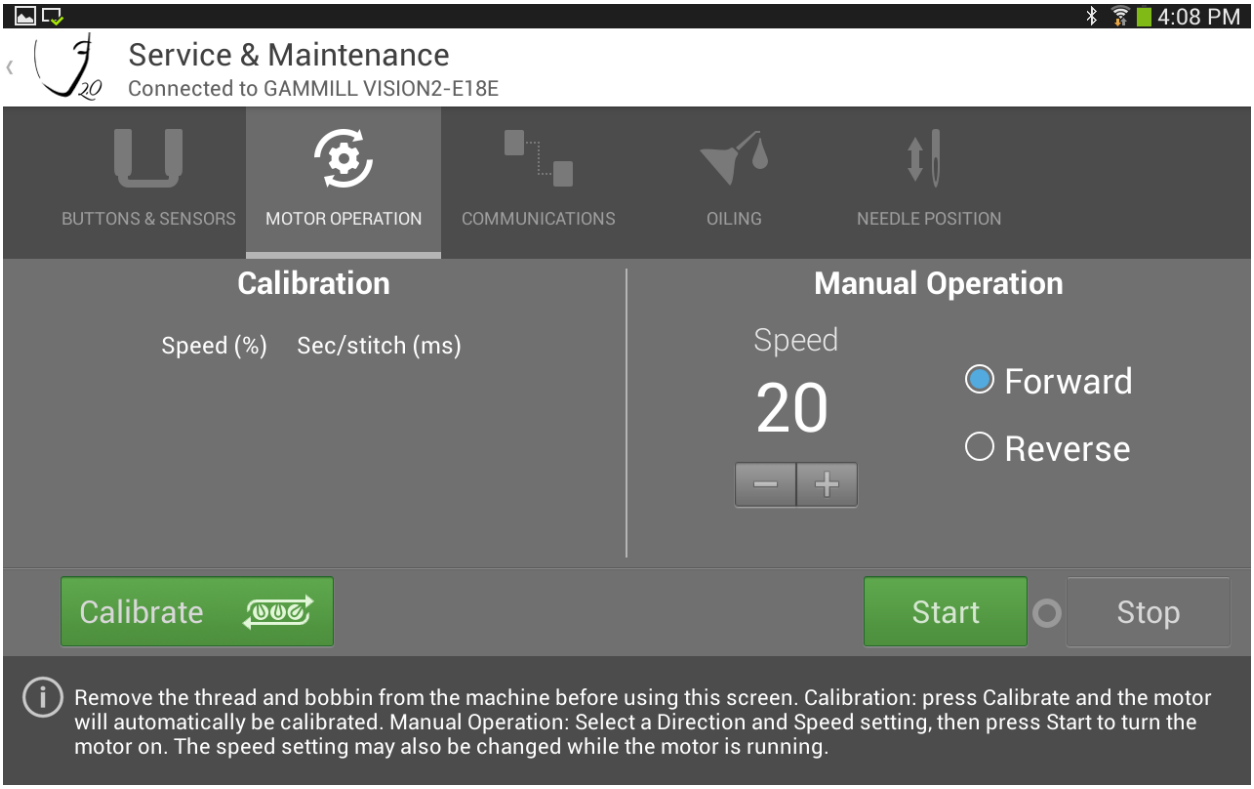
- Touch the left arrow at the top left of the screen.


4:06 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Encoder Position
Handle Buttons
Needle Position
Thread Movement
L
R
L
R
FRONT
REAR
UP SENSOR
DOWN SENSOR
COUNT
30
Use the indicators on this screen to check the performance of the X and Y encoders, the machine handle buttons, the needle position sensors, and the thread movement sensor. The associated indicator should turn green when you move the quilting arm, move the needle to its up and down limits, and press any handle button on the Vision 2 machine. The thread movement count should increase as the thread break wheel is turned.

MOTOR OPERATION

The Motor Operation tab contains the ability to manually operate the motor for troubleshooting purposes as well as initiate the motor calibration routine.

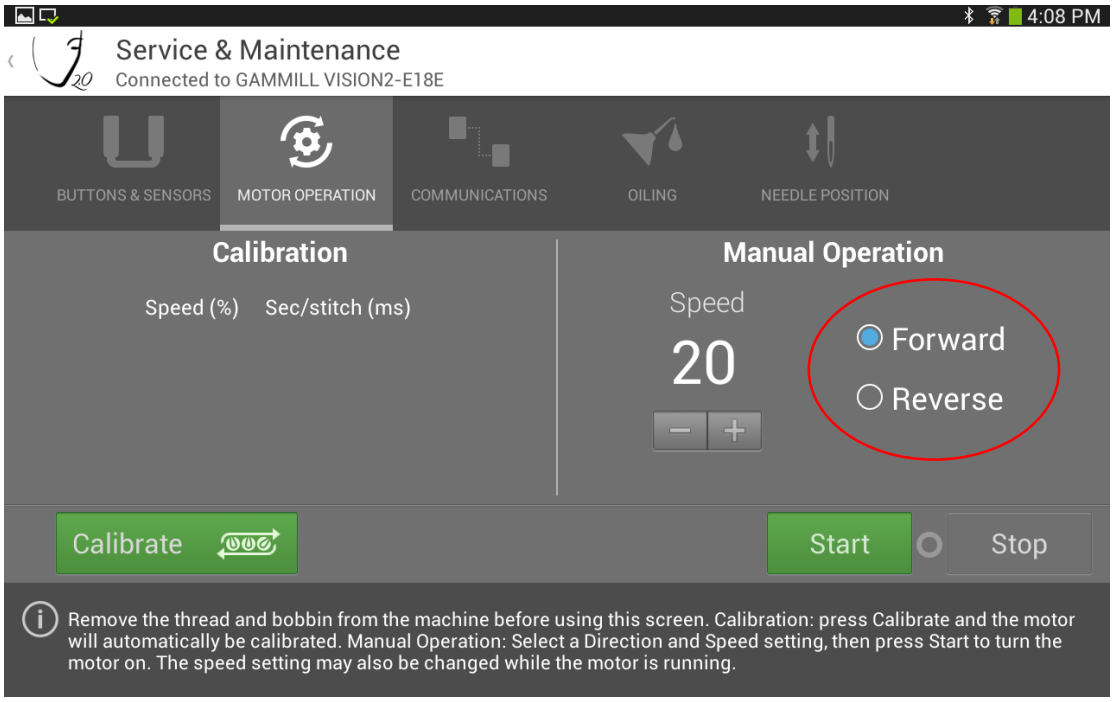
NOTICE	Remove the thread and bobbin from the machine before using this screen. Failure to do this could cause damage to the machine.


4:08 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
20
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

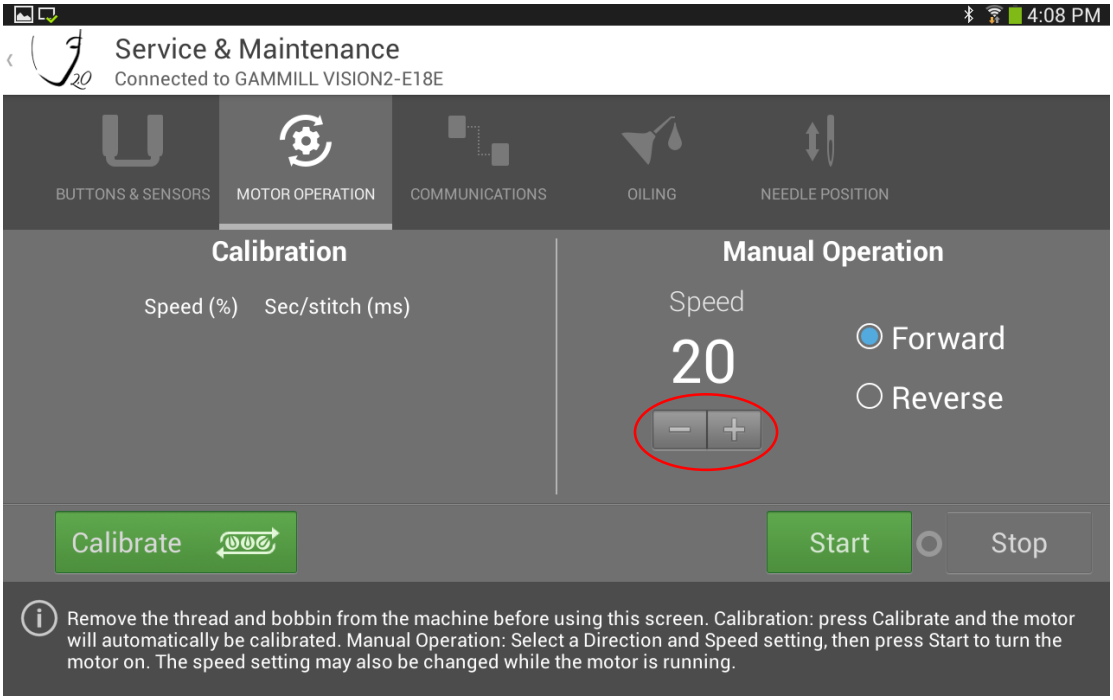
	⚠ CAUTION
	Moving needle can cause injury. Keep body parts and loose clothing away.

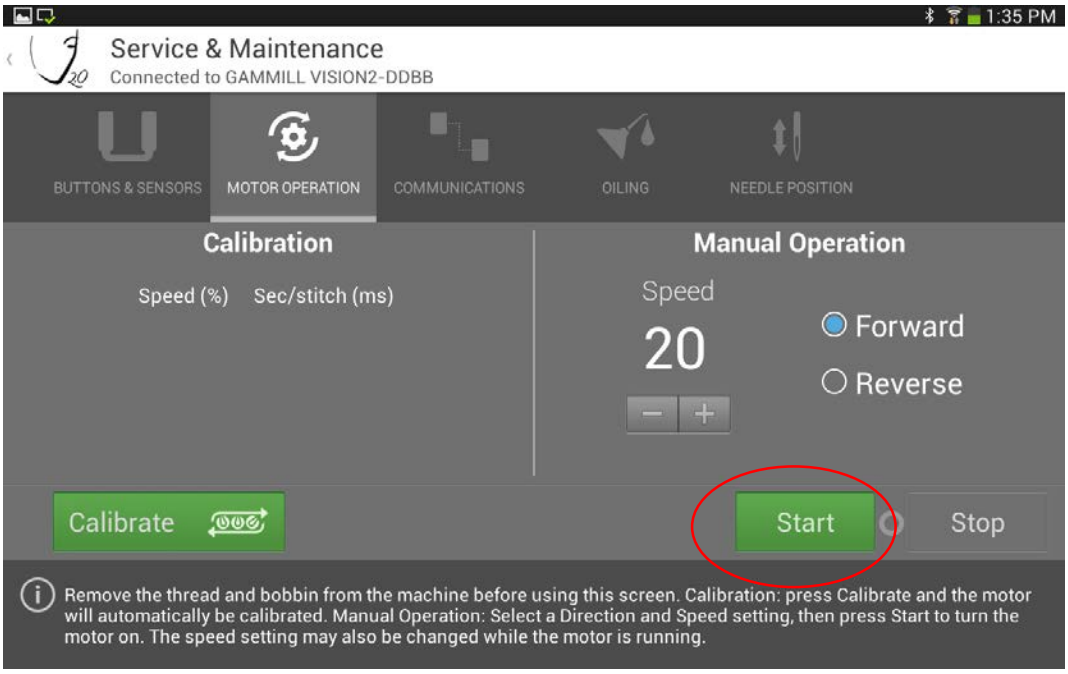
To manually run the motor:

- Touch **Forward** or **Reverse** to select a direction.

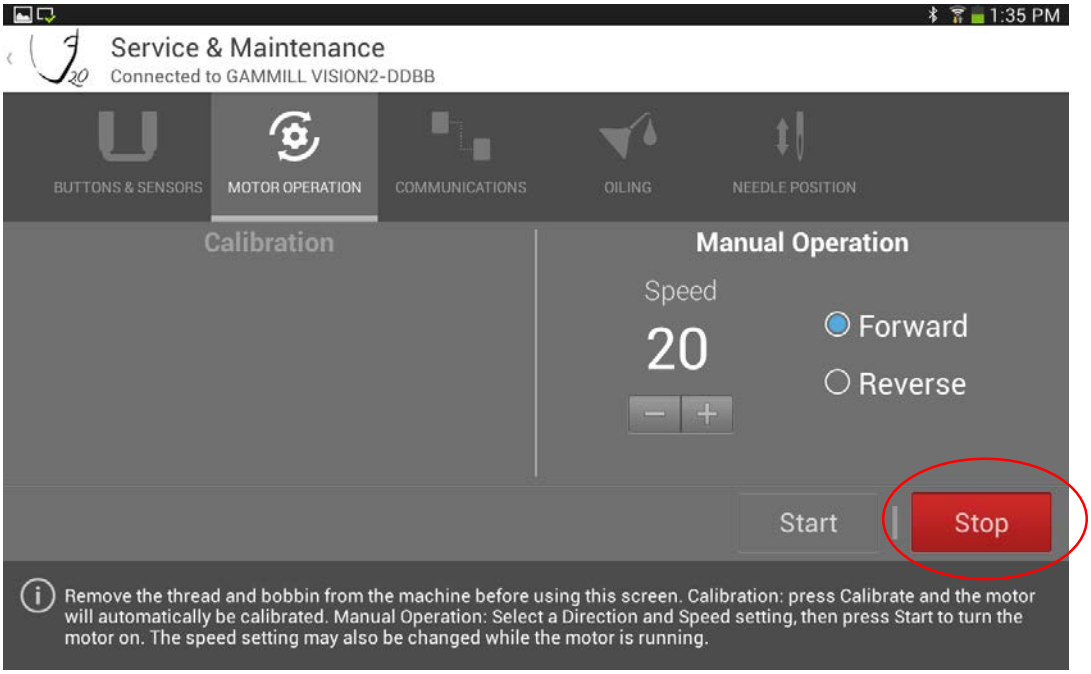

4:08 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
20
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

- Press the **–** (minus) or **+** (plus) to select the speed to run at.


4:08 PM
Service & Maintenance
Connected to GAMMILL VISION2-E18E
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
20
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.


1:35 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBB
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
20
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

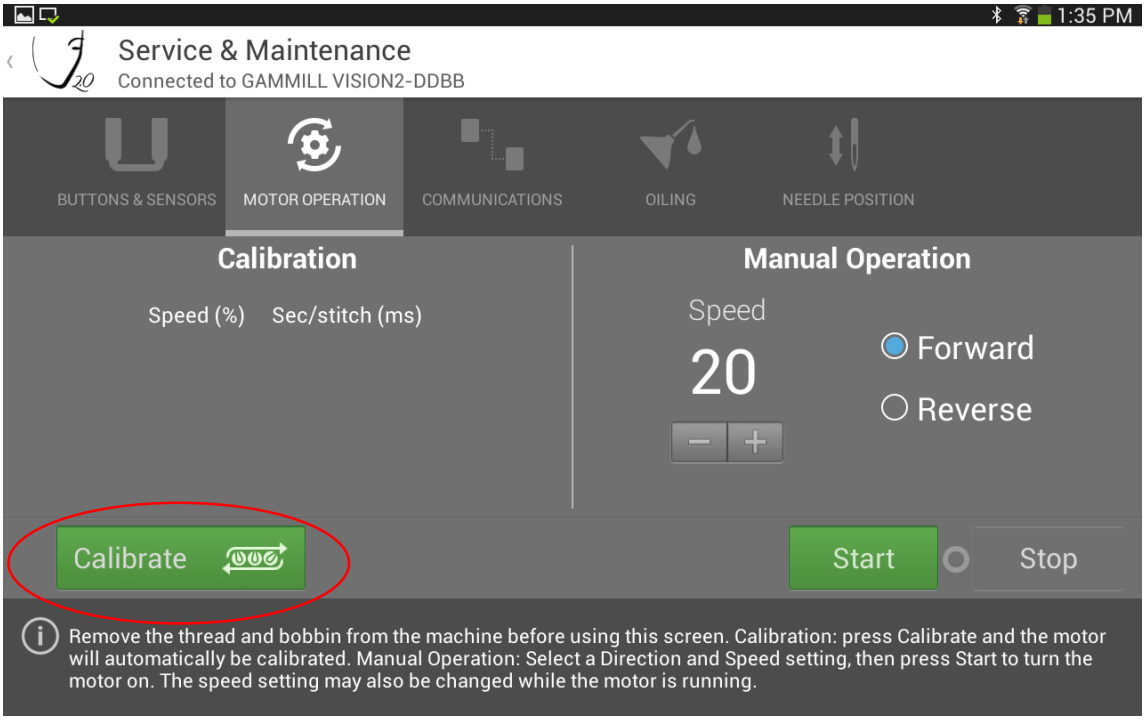
- Press the **Start** button on the screen.
- When you are ready to stop running, press the **Stop** button.


1:35 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBB
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Manual Operation
Speed
20
Forward
Reverse
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

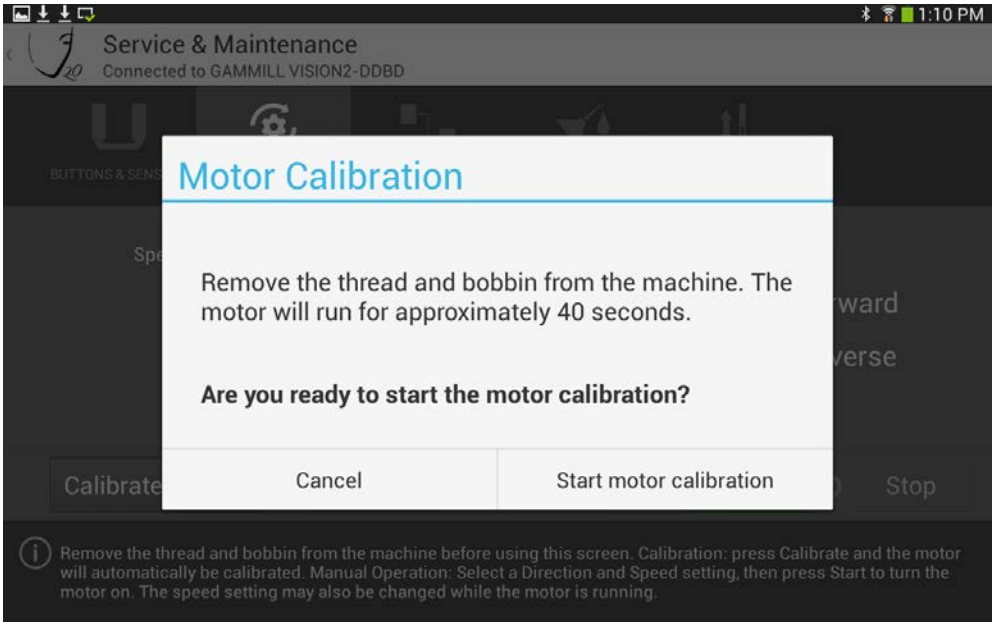
THE SPEED MAY BE ADJUSTED WHILE RUNNING, BUT THE MOTOR MUST BE STOPPED TO CHANGE THE DIRECTION.

To initiate the motor calibration routine:

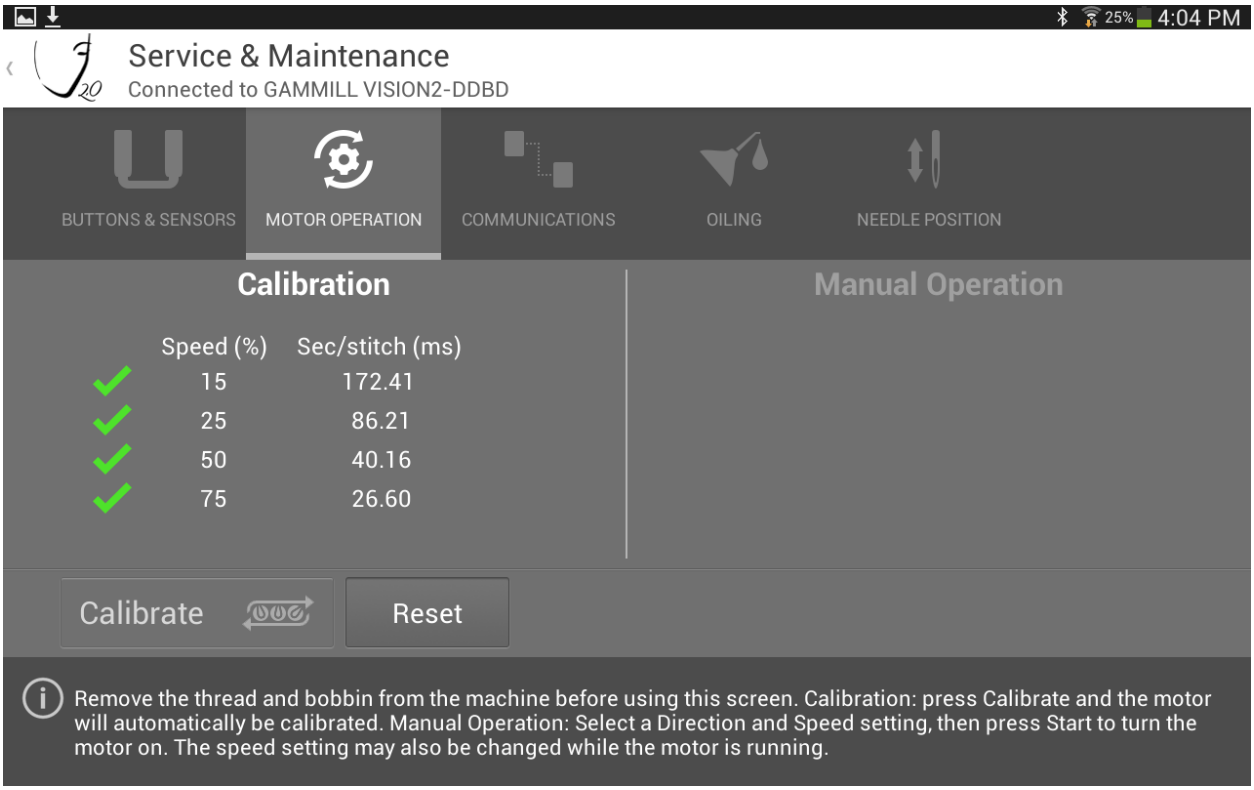
- Press the **Calibrate** button on the screen.


1:35 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBB
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Calibration
Speed (%)
Sec/stitch (ms)
Manual Operation
Speed
20
Forward
Reverse
Calibrate
Start
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

- A popup will appear, to confirm you are ready to begin calibration. If so, press **Start Motor Calibration**.
- If not, press **Cancel**.


1:10 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
Motor Calibration
Remove the thread and bobbin from the machine. The motor will run for approximately 40 seconds.
Are you ready to start the motor calibration?
Cancel
Start motor calibration
Calibrate
Stop
Remove the thread and bobbin from the machine before using this screen. Calibration: press Calibrate and the motor will automatically be calibrated. Manual Operation: Select a Direction and Speed setting, then press Start to turn the motor on. The speed setting may also be changed while the motor is running.

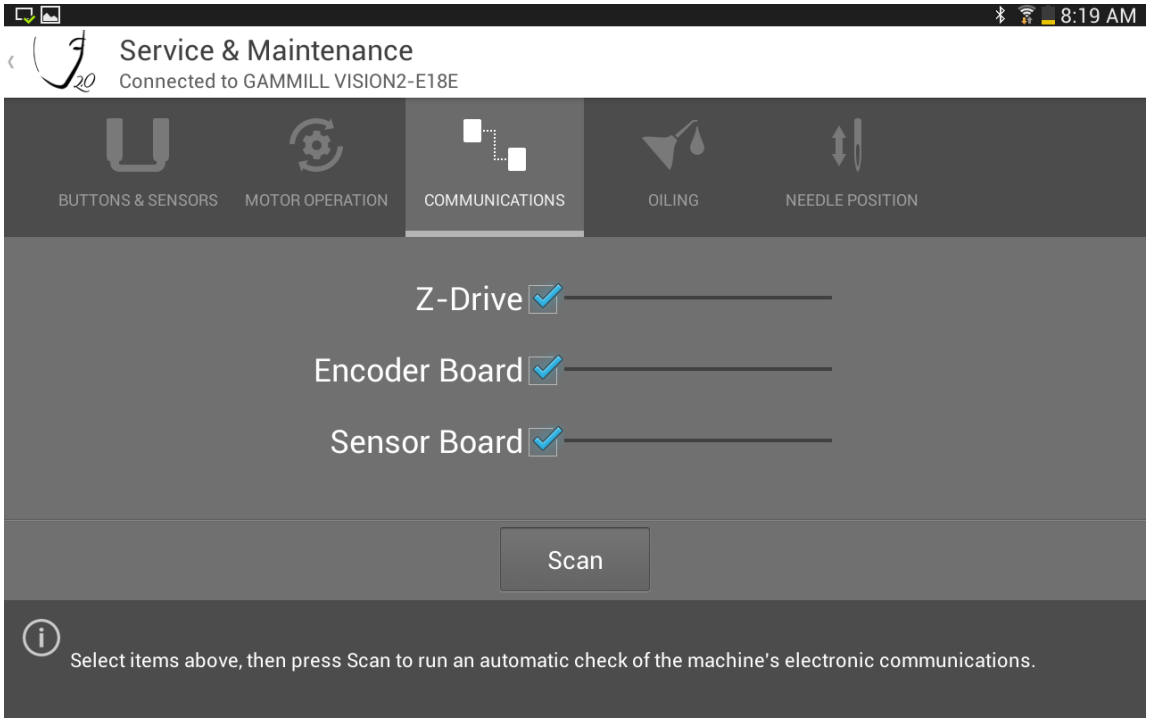
The calibration routine will run automatically, displaying results as it progresses.



IF YOU RUN THE CALIBRATION AND WANT TO THEN RUN THE MANUAL OPERATION, PRESS **RESET** TO ACCESS THE MANUAL OPERATION SPEED ADJUSTMENTS.

COMMUNICATIONS

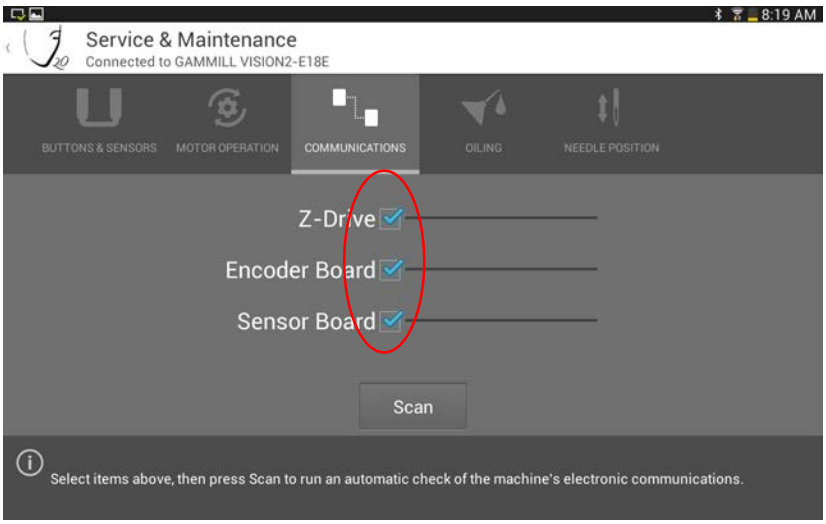
Use the communications tab to verify that the internal machine communications are working properly.



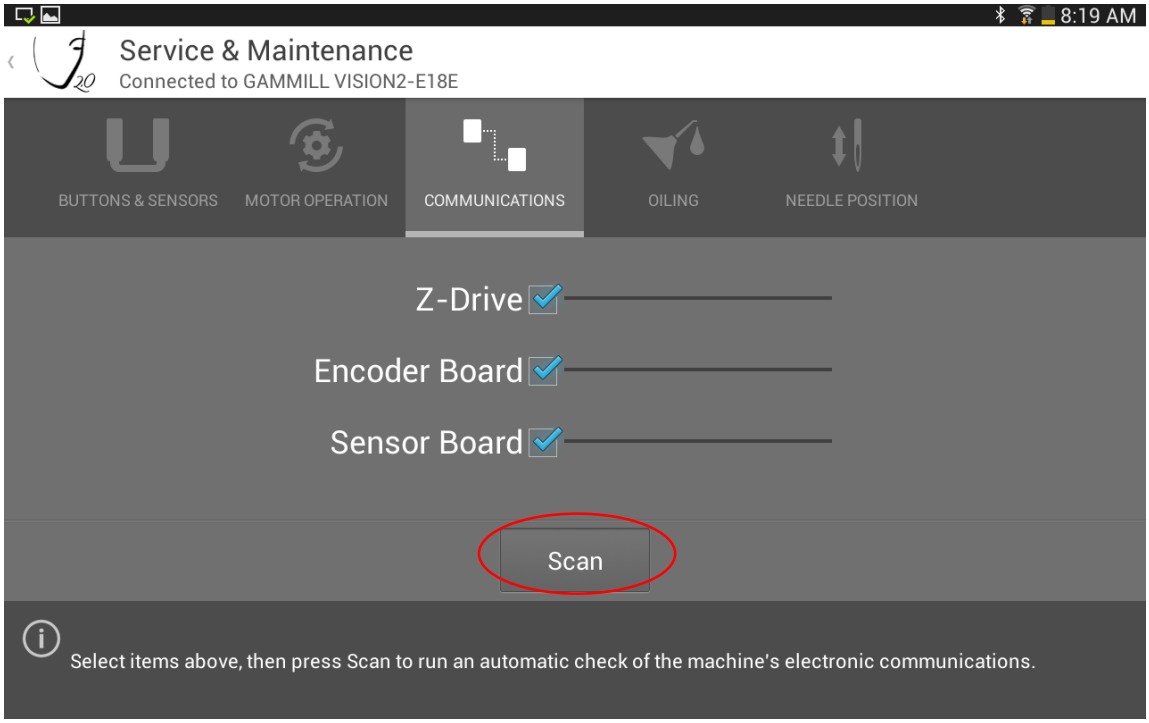
THIS SCREEN IS USEFUL TO DIAGNOSE AN INTERMITTENT CONNECTION PROBLEM WITHIN THE MACHINE, OR A CIRCUIT BOARD THAT MAY BE FAILING.

To test Communications:

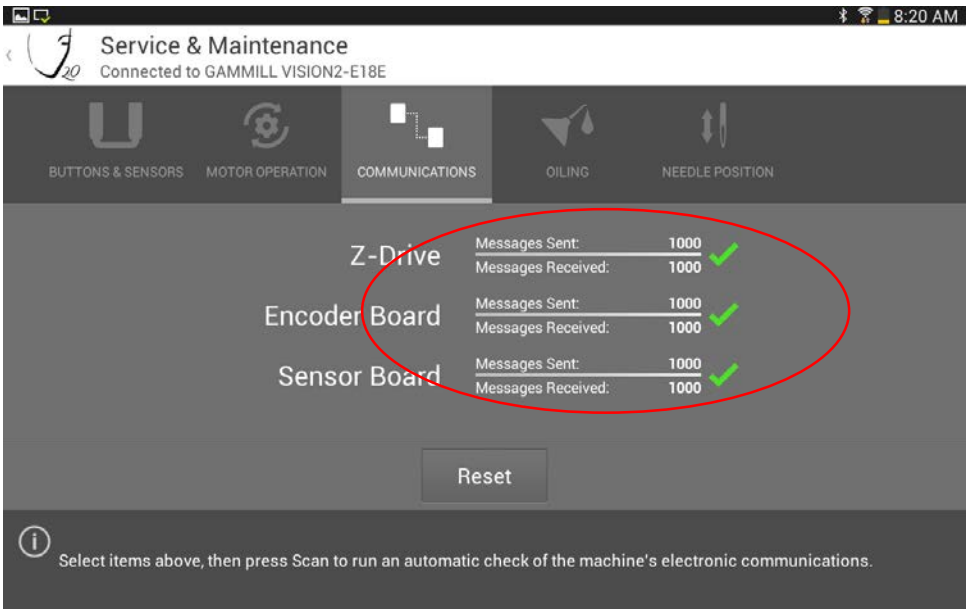
- Notice the boxes beside each of the communication systems to test is already checked.
- Touch the box beside any of the systems you do not wish to test.
- Leave all of the boxes checked to check the entire communication system.



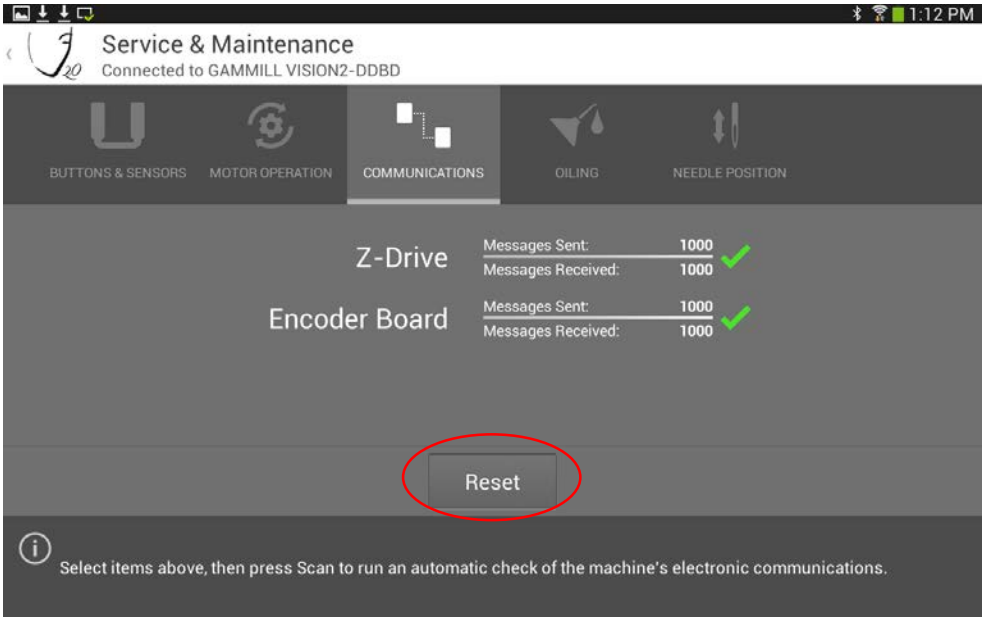
- Press the **Scan** button.



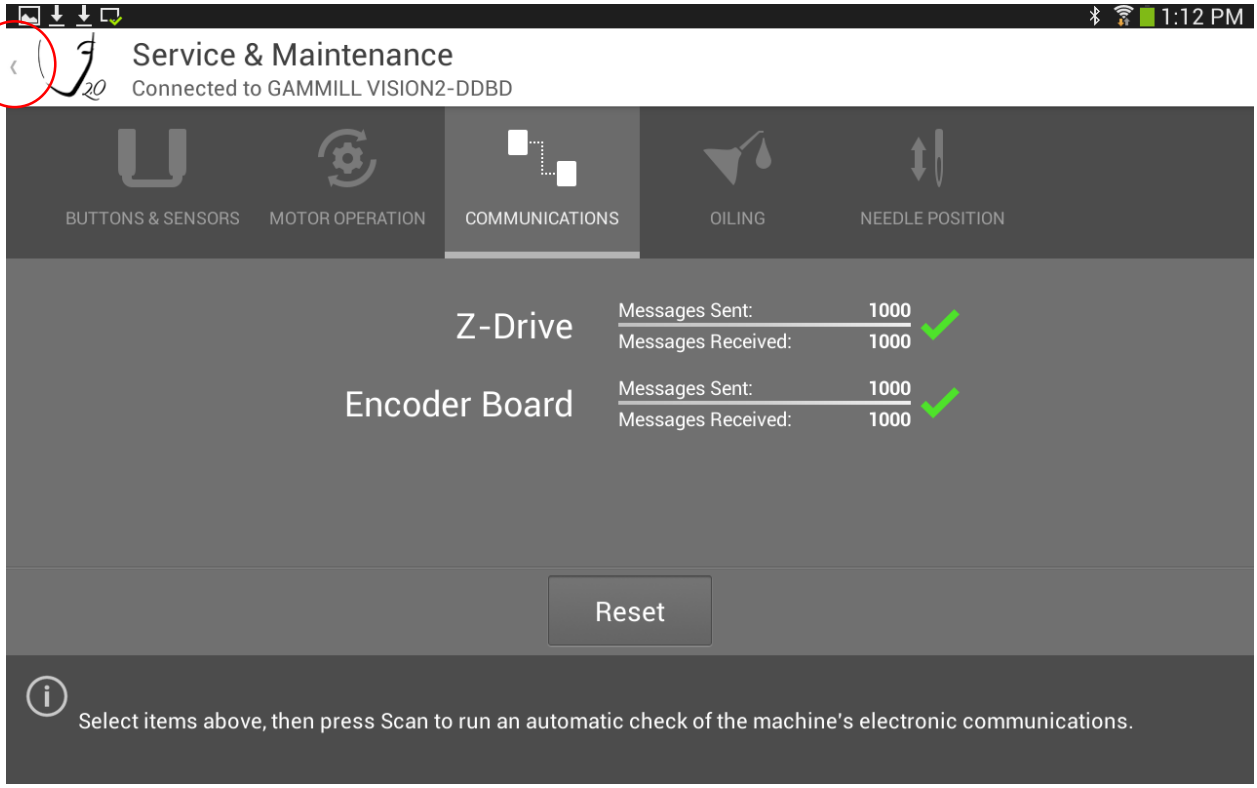
- The test will automatically run showing progress and results. The messages received should be equal to the messages sent. If they are not equal, communication was lost between the device and the Bluetooth module.



- Touch the **Reset** button to retest the communication system.



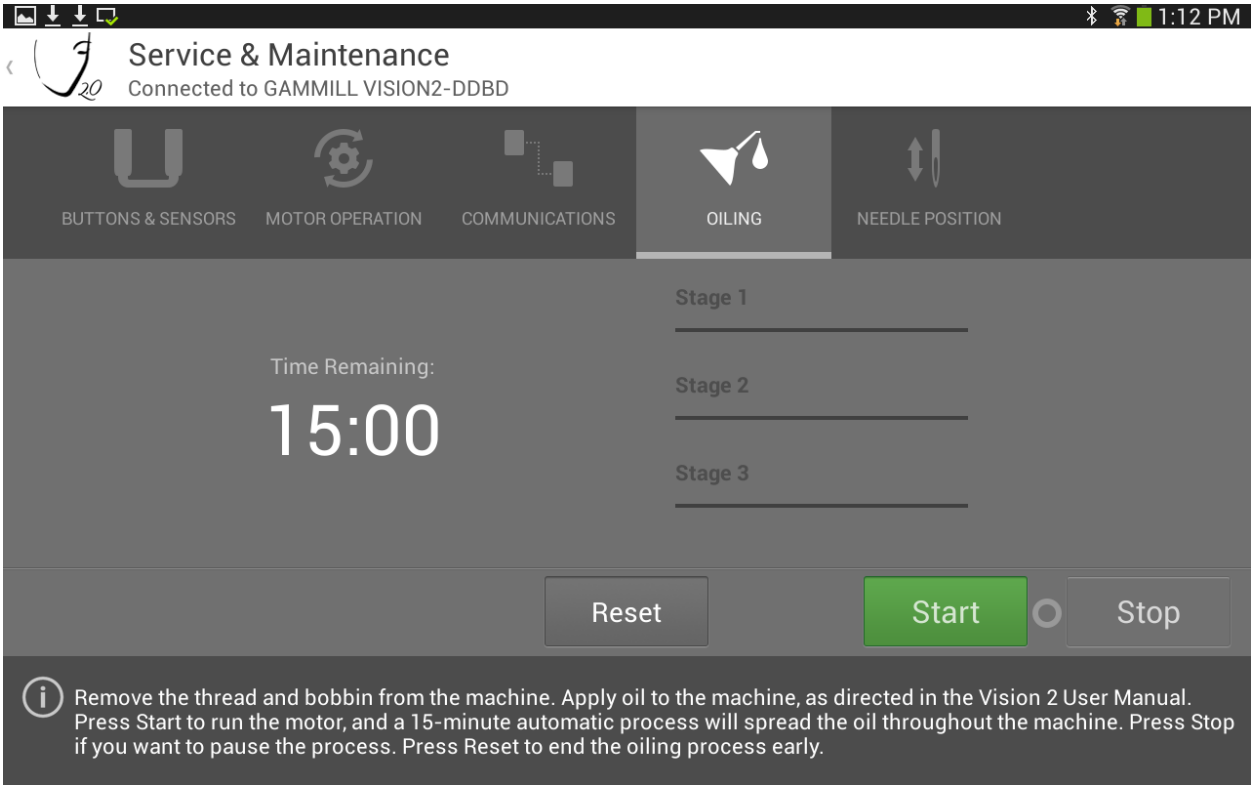
To exit and return to the main screen, press the left arrow at the top left of the screen.



OILING

Run the Oiling Routine to exercise the machine once it has been oiled after sitting for an extended period of time. This routine helps get the oil properly distributed throughout the system.

NOTICE	Remove the thread and bobbin from the machine before using this screen. Failure to do this could cause damage to the machine.

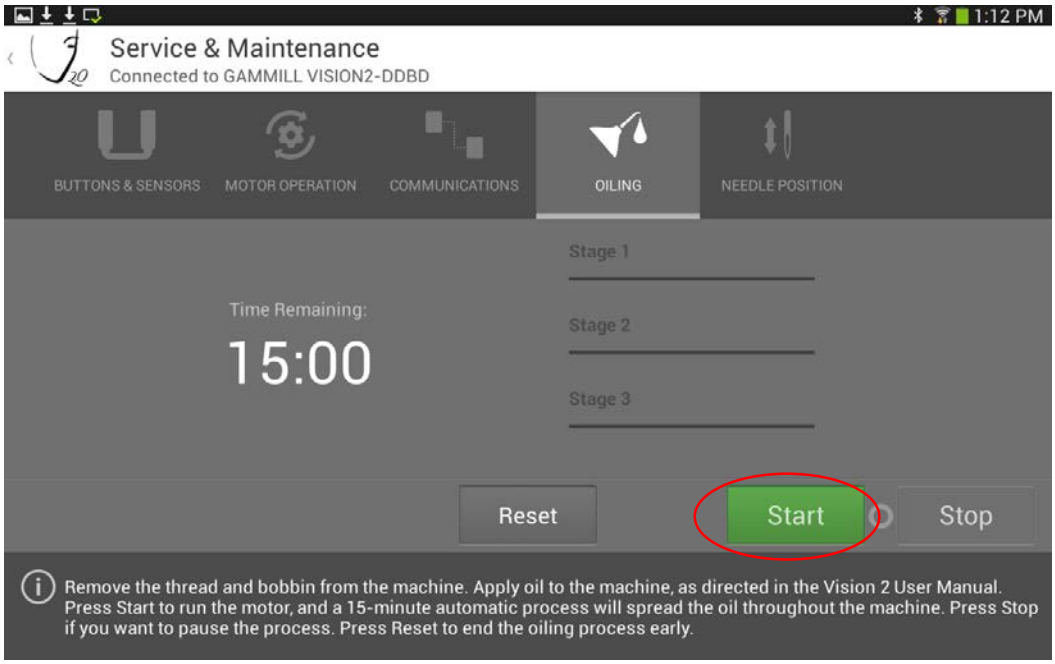

1:12 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Stage 1
Time Remaining:
15:00
Stage 2
Stage 3
Reset
Start
Stop
Remove the thread and bobbin from the machine. Apply oil to the machine, as directed in the Vision 2 User Manual. Press Start to run the motor, and a 15-minute automatic process will spread the oil throughout the machine. Press Stop if you want to pause the process. Press Reset to end the oiling process early.

THE OILING ROUTINE IS A WAY TO RUN THE MACHINE THROUGH A 15 MINUTE OILING ROUTINE. DURING THIS ROUTINE, THE MACHINE WILL RUN 5 MINUTES IN FORWARD, 5 MINUTES IN REVERSE, AND 5 MINUTES IN FORWARD.

	⚠ CAUTION
	Moving needle can cause injury. Keep body parts and loose clothing away.

To run the Oil Routine:

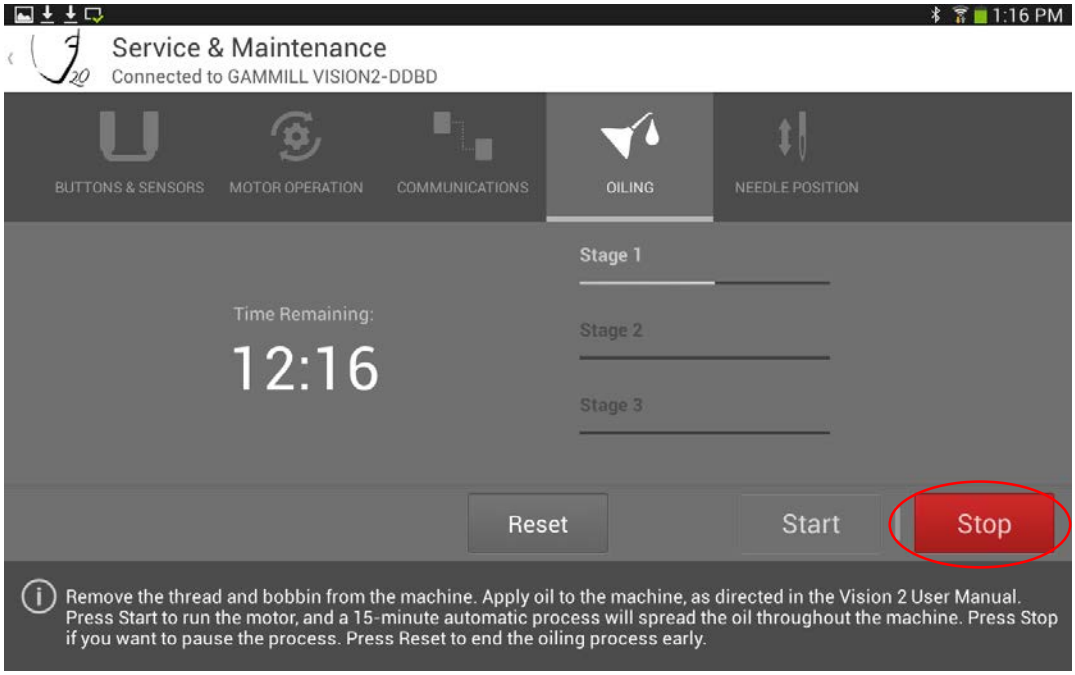
- Fill all oiling points on the machine. See Oiling Instructions on page 11.
- Touch the **Start** button.


1:12 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Stage 1
Time Remaining:
15:00
Stage 2
Stage 3
Reset
Start
Stop
Remove the thread and bobbin from the machine. Apply oil to the machine, as directed in the Vision 2 User Manual. Press Start to run the motor, and a 15-minute automatic process will spread the oil throughout the machine. Press Stop if you want to pause the process. Press Reset to end the oiling process early.

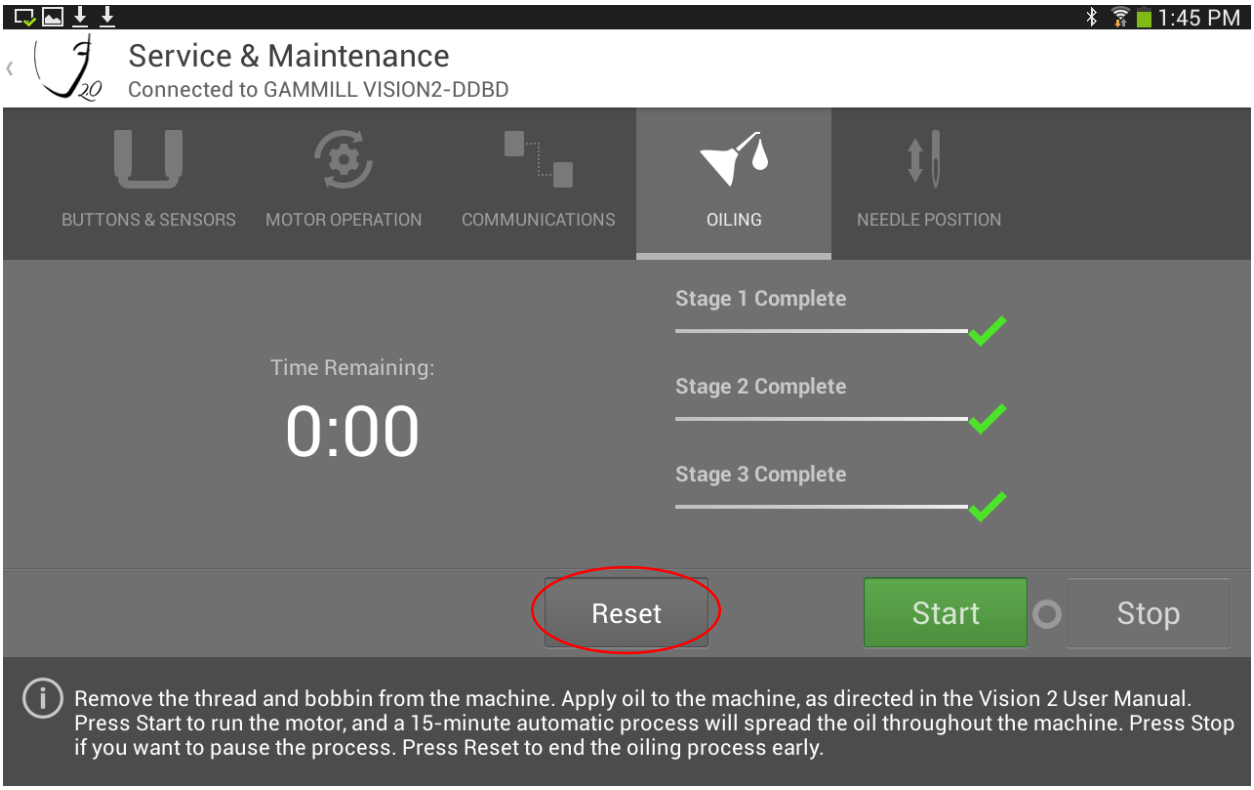
- The machine will go through the routine and show the progress. When the routine is complete, the machine will automatically stop running.

To Stop and Resume the Oiling Routine:

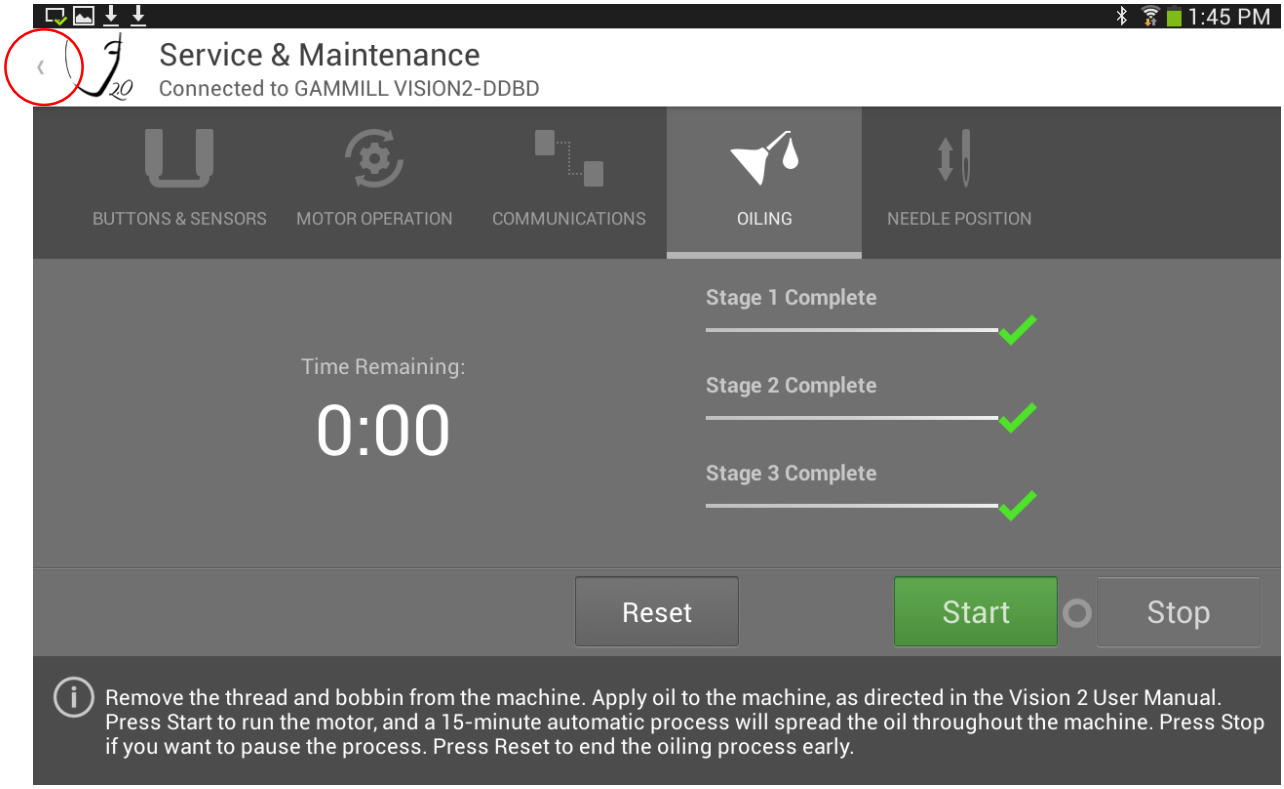
- Touch the **Stop** button to stop the oiling routine.


1:16 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Stage 1
Time Remaining:
12:16
Stage 2
Stage 3
Reset
Start
Stop
Remove the thread and bobbin from the machine. Apply oil to the machine, as directed in the Vision 2 User Manual. Press Start to run the motor, and a 15-minute automatic process will spread the oil throughout the machine. Press Stop if you want to pause the process. Press Reset to end the oiling process early.

- Touch the **Start** button to resume to continue the oiling routing.
- Touch the **Reset** button to begin from the beginning of the oiling routine.


1:45 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Time Remaining:
0:00
Stage 1 Complete
Stage 2 Complete
Stage 3 Complete
Reset
Start
Stop
Remove the thread and bobbin from the machine. Apply oil to the machine, as directed in the Vision 2 User Manual. Press Start to run the motor, and a 15-minute automatic process will spread the oil throughout the machine. Press Stop if you want to pause the process. Press Reset to end the oiling process early.

To exit and return to the main screen, press the left arrow at the top left of the screen.

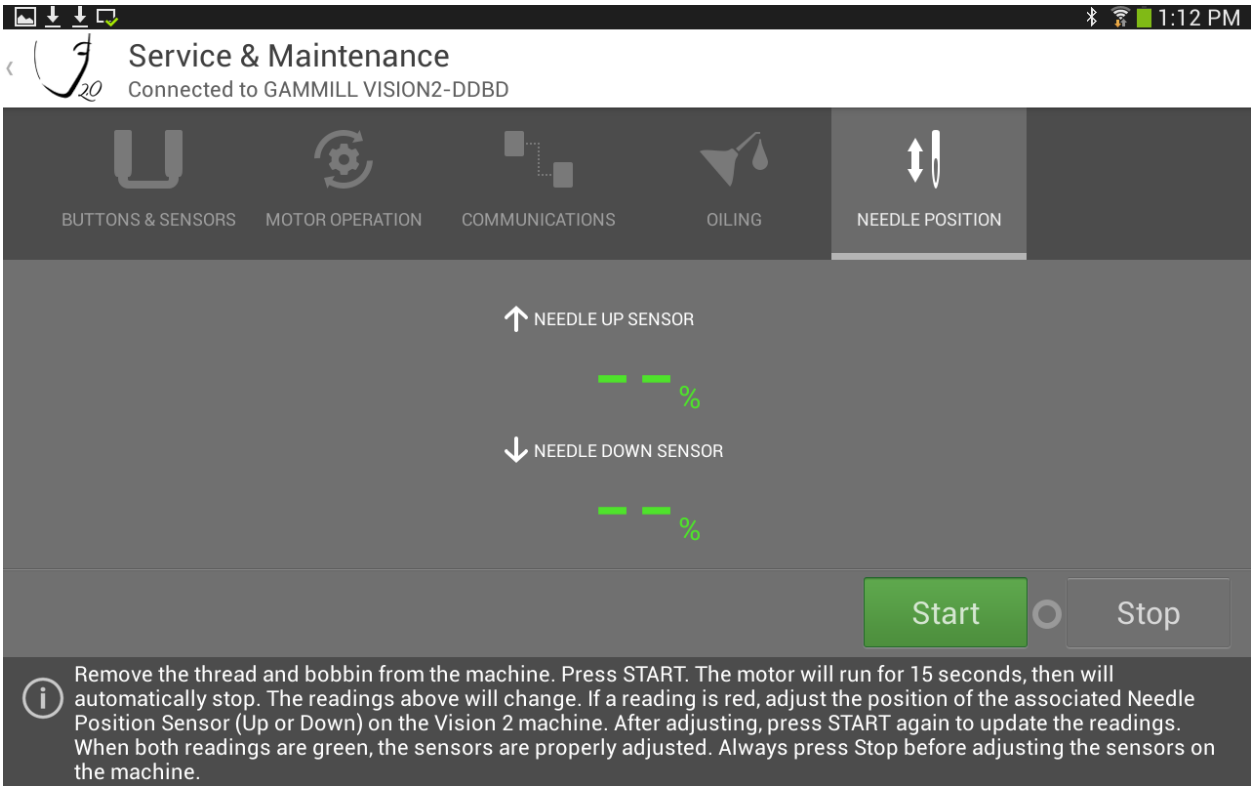

1:45 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
Time Remaining:
0:00
Stage 1 Complete
Stage 2 Complete
Stage 3 Complete
Reset
Start
Stop
Remove the thread and bobbin from the machine. Apply oil to the machine, as directed in the Vision 2 User Manual. Press Start to run the motor, and a 15-minute automatic process will spread the oil throughout the machine. Press Stop if you want to pause the process. Press Reset to end the oiling process early.

STAGE 1 RUNS THE MACHINE FORWARD FOR 5 MINUTES. STAGE 2 RUNS THE MACHINE REVERSE FOR 5 MINUTES. STAGE 3 RUNS THE MACHINE FORWARD FOR 5 MINUTES.

NEEDLE POSITION

Automatically verify that the needle position sensors are working and adjusted properly by using the Needle Position tab.

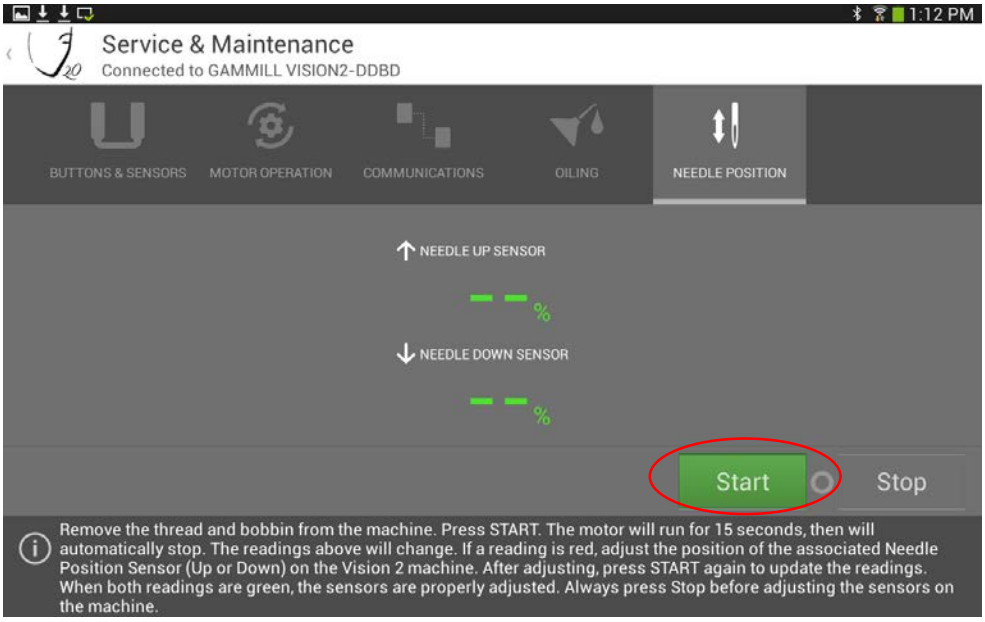
NOTICE	Remove the thread and bobbin from the machine before using this screen. Failure to do this could cause damage to the machine.


1:12 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
NEEDLE UP SENSOR
– – %
NEEDLE DOWN SENSOR
– – %
Start
Stop
Remove the thread and bobbin from the machine. Press START. The motor will run for 15 seconds, then will automatically stop. The readings above will change. If a reading is red, adjust the position of the associated Needle Position Sensor (Up or Down) on the Vision 2 machine. After adjusting, press START again to update the readings. When both readings are green, the sensors are properly adjusted. Always press Stop before adjusting the sensors on the machine.

	⚠ CAUTION
	Moving needle can cause injury. Keep body parts and loose clothing away.

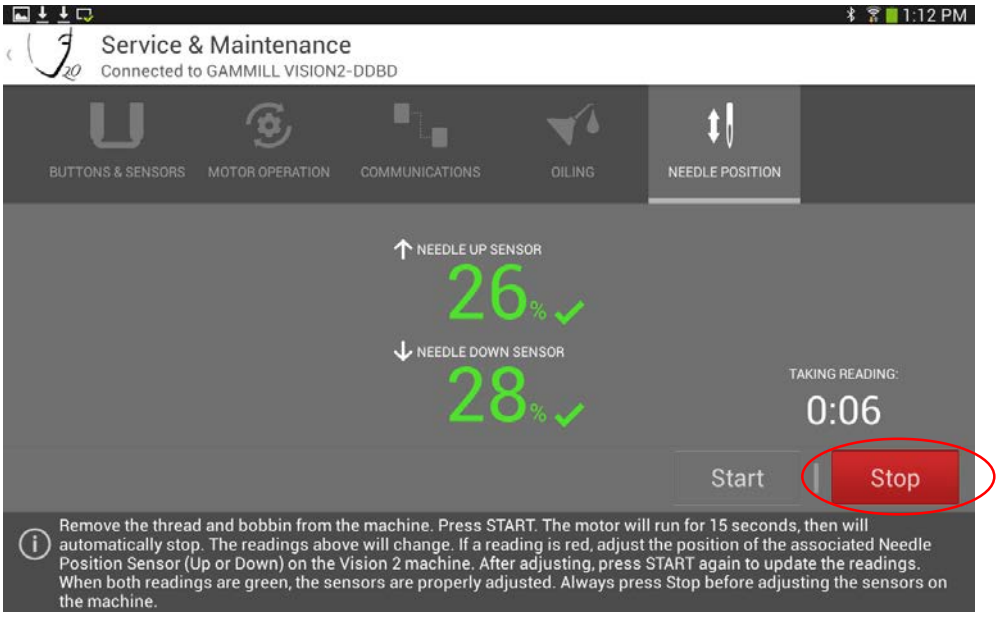
To test the Needle Sensors:

- Touch the **Start** button.

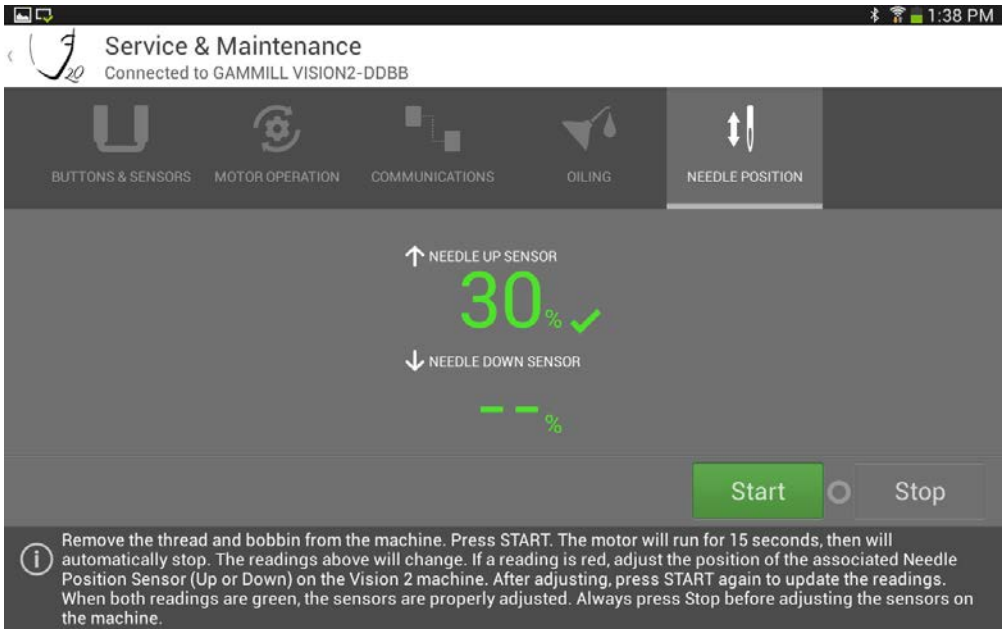

1:12 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
NEEDLE UP SENSOR
NEEDLE DOWN SENSOR
Start
Stop
Remove the thread and bobbin from the machine. Press START. The motor will run for 15 seconds, then will automatically stop. The readings above will change. If a reading is red, adjust the position of the associated Needle Position Sensor (Up or Down) on the Vision 2 machine. After adjusting, press START again to update the readings. When both readings are green, the sensors are properly adjusted. Always press Stop before adjusting the sensors on the machine.

THE MACHINE WILL RUN AN AUTOMATED TEST AND STOP WHEN COMPLETE. THE DISPLAY WILL SHOW THE VALUES FOR THE UP AND DOWN SENSORS AS WELL AS COLOR AND SYMBOLS TO SHOW IF THE VALUES ARE ACCEPTABLE OR NOT.

- Touch the **Stop** button to stop the test while running.

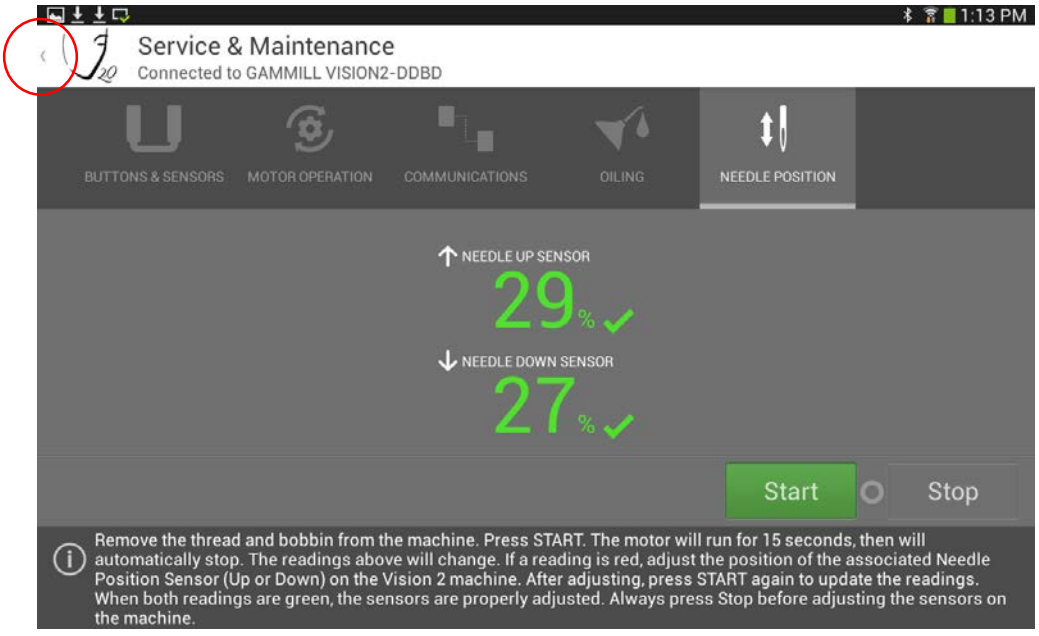

1:12 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
NEEDLE UP SENSOR
26%
NEEDLE DOWN SENSOR
28%
TAKING READING:
0:06
Start
Stop
Remove the thread and bobbin from the machine. Press START. The motor will run for 15 seconds, then will automatically stop. The readings above will change. If a reading is red, adjust the position of the associated Needle Position Sensor (Up or Down) on the Vision 2 machine. After adjusting, press START again to update the readings. When both readings are green, the sensors are properly adjusted. Always press Stop before adjusting the sensors on the machine.

- Touch the **Start** button to restart the test.


1:38 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBB
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
NEEDLE UP SENSOR
30 %
NEEDLE DOWN SENSOR
-- %
Start
Stop
Remove the thread and bobbin from the machine. Press START. The motor will run for 15 seconds, then will automatically stop. The readings above will change. If a reading is red, adjust the position of the associated Needle Position Sensor (Up or Down) on the Vision 2 machine. After adjusting, press START again to update the readings. When both readings are green, the sensors are properly adjusted. Always press Stop before adjusting the sensors on the machine.

IF THE VALUE IS GREEN, AND FOLLOWED BY A CHECKMARK, THE TEST HAS PASSED. IF THE VALUE IS RED AND FOLLOWED BY AN X, THE TEST HAS FAILED. IN THE EVENT OF A FAILURE, CALL FOR TECHNICAL SUPPORT OR CONTACT A GAMMILL REPRESENTATIVE.

To exit and return to the main screen, press the left arrow at the top left of the screen.


1:13 PM
Service & Maintenance
Connected to GAMMILL VISION2-DDBD
BUTTONS & SENSORS
MOTOR OPERATION
COMMUNICATIONS
OILING
NEEDLE POSITION
NEEDLE UP SENSOR
29 %
NEEDLE DOWN SENSOR
27 %
Start
Stop
Remove the thread and bobbin from the machine. Press START. The motor will run for 15 seconds, then will automatically stop. The readings above will change. If a reading is red, adjust the position of the associated Needle Position Sensor (Up or Down) on the Vision 2 machine. After adjusting, press START again to update the readings. When both readings are green, the sensors are properly adjusted. Always press Stop before adjusting the sensors on the machine.